

DOCUMENT DATA FORM

Your Name: Nick Carino

Document Title or Description (max. 254 characters): Circle: Same as cover (or fill in below)

Drawing book 8 ; chapter 3: Concrete fireproofing;
 Include work order no. and floor no. if applicable floor cross-sections, telephone closet details
 Roll # DB03 Doc. ID (report #, dwg. #): elevator lobby

Document Date: 1968-69

Document Author Name:

Author Organization:

SHC&R

KEYWORDS - HIGHLIGHT ALL THAT APPLY

Level 1		
Bankers Trust	Project 4	WTC 1 - North Tower <u>Add</u>
Below Grade	Project 5	WTC 2 - South Tower
Concourse	Project 6	WTC 3 - Marriot Hotel
Electrical Substation	Project 7	WTC 4 - South Plaza Bldg.
Liberty Plaza	Project 8	WTC 5 - North Plaza Bldg
PATH Station	WFC 1 - Oppenheimer Dow	WTC 6 - Customs House
PATH Terminal	WFC 2 - Tower B	WTC 7
Project 1	WFC 3 - American Express	WTC Complex
Project 2	WFC 4 - Tower D	WTC Plaza
Project 3		

Level 2			
Accident analysis & risk	Fire protection	Misc. Performance Problems	<u>Structural</u>
Architectural	Fire service	News coverage	Tenant alterations
Data request	Landscaping	Police	Tenant Space
Emergency management	Management	Security	<u>Add</u>
Evacuation	Mech./elec.		

Level 3				
1993 explosion	Cranes	Frame	Roof	Weight
A/E fitout	Criteria	Frame analysis	Safety	Weld detail
A-242	Dampers	Frequency	Schedule	Weld size
A-36	Debris	Fuel	Sculpture	Welding
A-497	Deck	Furniture layout	Security system	Wind
Aircraft impact	Deflection	Generators	Shear knuckle	Windows
Air cooled condensers	Demolition	Guidelines	Shear test	Yield strength
Analysis	Design	Gypsum board	Shear Stud	<u>Add</u>
Angles	<u>Detailing</u>	Hat truss	Shop drawings	<u>Drawing books</u>
Antenna	Doors	Human comfort	Shortening	
Artifacts	Drawings	HVAC	Slab	
Asbestos	Eastern States Steel	Index	Slurry wall	
Base plate	Egress	Inspection	Smoke control	
Beams	Elevator	Insulation	Smoke test	
Bid documents	Elevator Shaft	Job number	Spandrel beam	
Bid Invitation	Emergency	Joist	Specifications	
Bow tie	communications	L-50	Splices	
Bracing	Equipment	Lighting	Sprinkler	
Bridging truss	Erection marks	Loads	Stability	
Building code	Errors & Omissions	Maintenance	Stairways	
Calculations	Escalator	Marking	Standards	
Carpet	Expansion joint	Mesh reinforcement	Steel	
Ceilings	Exterior columns	Mill inspection	Steel composition	
Certification	Fabrication	Model	Stiffness	
Chillers	Family member	Mullion	Structural review	
Cladding	Field survey	Operations	Surveillance	
Collapse	Fire alarms	Paint	Survey	
Columns	<u>Fireproofing</u>	Partition layout	Survivor	
Communication systems	Fire spread	Partitions	Tenant list	
Composite truss	Fire testing	Photos	Tenant occupancy	
Computer output	Firetower	Pipes	Testing	
Computer program	Flag Pole	Plumbing	Tie	
Concrete	Flammability	Prestressing	Tolerances	
Connections	Floor	Probability, uncertainty	Transfer Girders	
Construction	<u>Floor load</u>	Quality control	Triad	
Contract	<u>Floor slab</u>	Ramp	Truss	
Core beams	Floor system	Reinforcing	Vestibule	
Core columns	Floor trusses	(strengthening)	Vibration	
Corrosion	Formwork	Renovation	Walls	
Cracking	Foundations	Repair	Water supply	
	Fracture	Research & Development	Weather	

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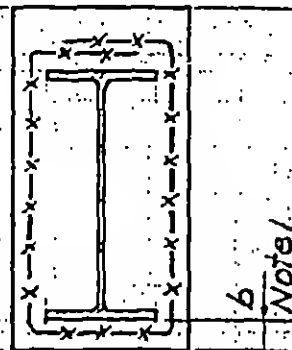
TITLE CONCRETE FIRE-PROOFING

DATE 3-1-68

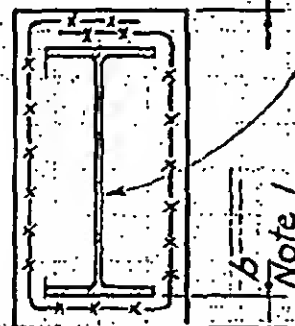
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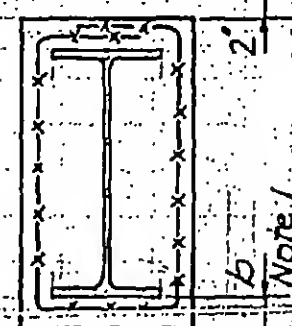
8-27-69

Ref. finish
floor line

Section A-A

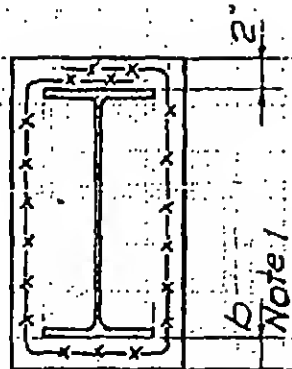


Section B-B

Section C-C
Section E-E

Note:

WF steel beam shown.
Section may be WF, channel,
or steel box beam-see Plans
(Typical all sections)



Section D-D

NOTES:

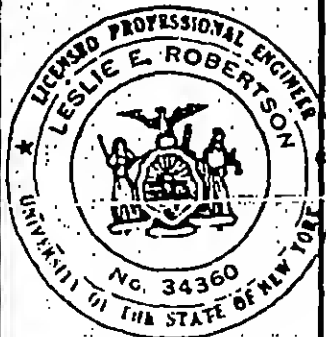
1. $b = 3"$ in Tower A cores, Floor 9 & below
 $b = 2"$ min. $3"$ max Tower B cores Floor 1 & below
For other locations see table, this sheet.

2. See 8-AB1-4, 8-AB1-5, & 8-AB1-6 for typical
details of concrete fireproofing. See
8-AB1-3 for typical slab details.

TABLE FOR DIMENSION "b"

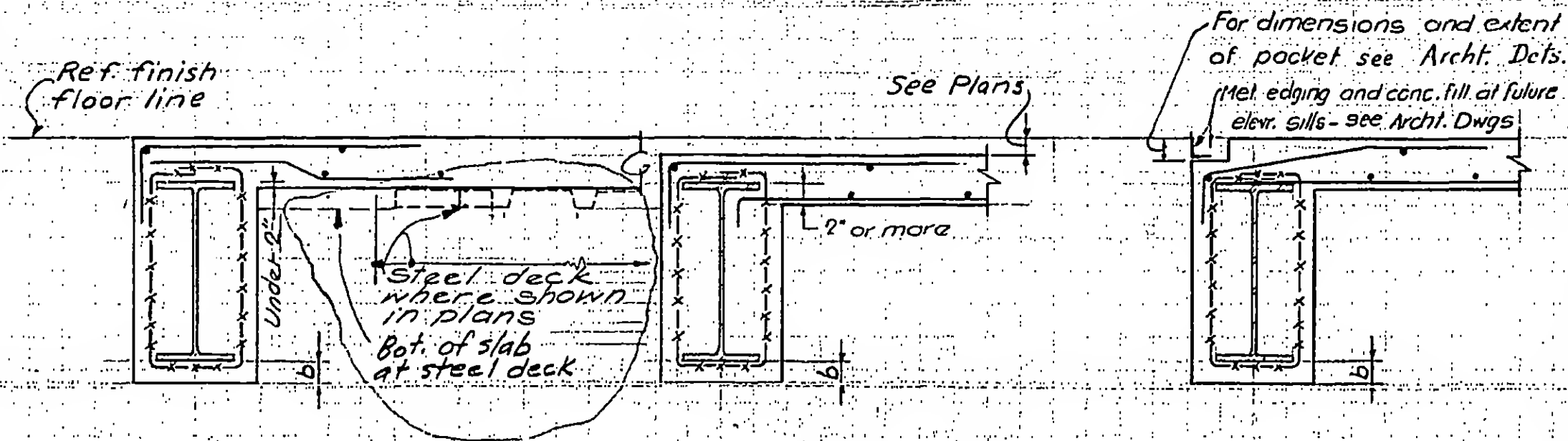
Location	Beam Size	Dimension b
Line 500 or 1000	16B or I	2 1/2"
Line 600 or 900	16WF	3"
Elsewhere	Beam connected to one or more columns	3"
Elsewhere	Beams not connected to columns	2"

Where bottom cover
plate exists, concrete
fireproofing to R
shall be 2" minimum



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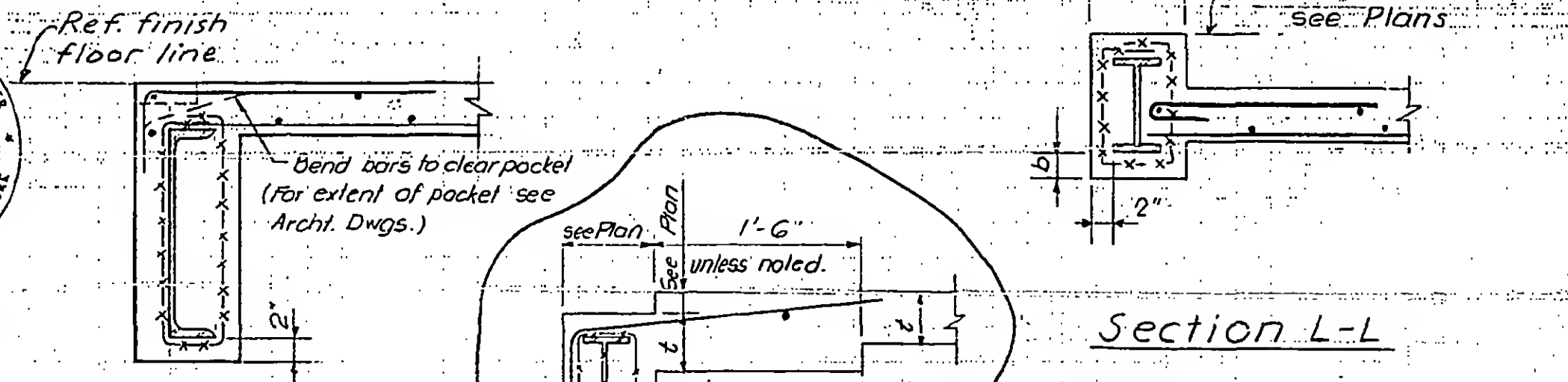
5/31/68
 8-20-68
 8-28-68



Section G-G

Section H-H

Section J-J

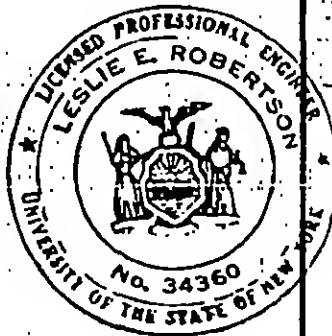


Section K-K

Section J'-J'

Section L-L

Note:
 See Plans and 8-ABI-3
 for slab reinforcing.



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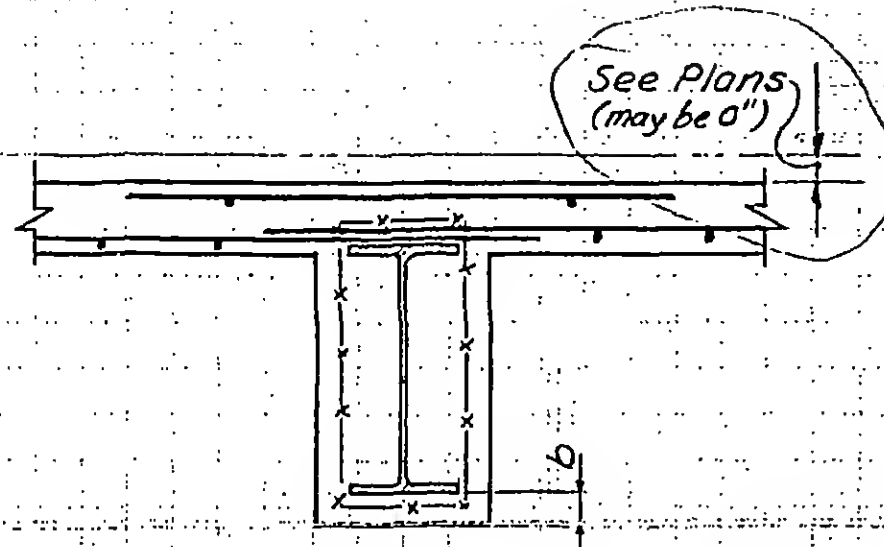
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TITLE CONCRETE FIREPROOFING

DATE 3-1-68

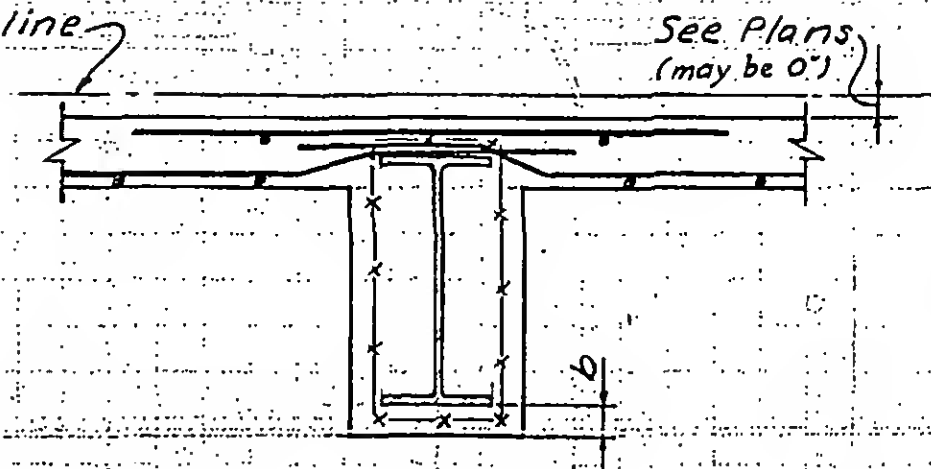
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Section M-M

Ref. finish floor line



Section N-N

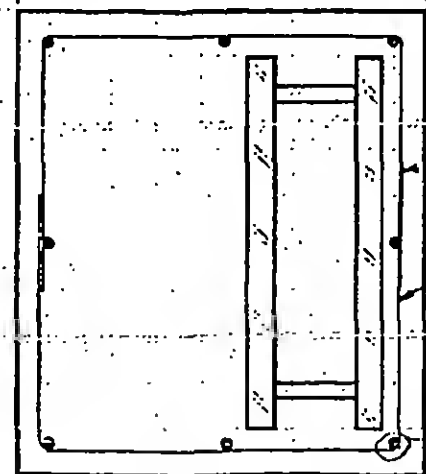
See Plan

See Plan

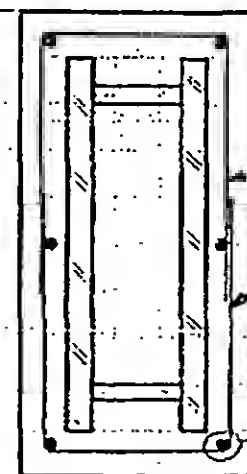
See Plan

See Plan

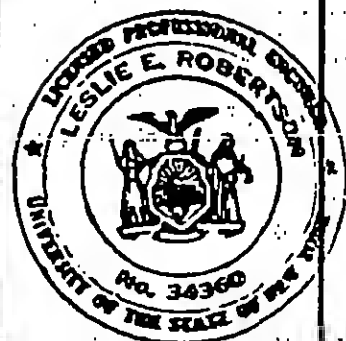
See Plan



Section X-X



Section Y-Y



8-AB3-23

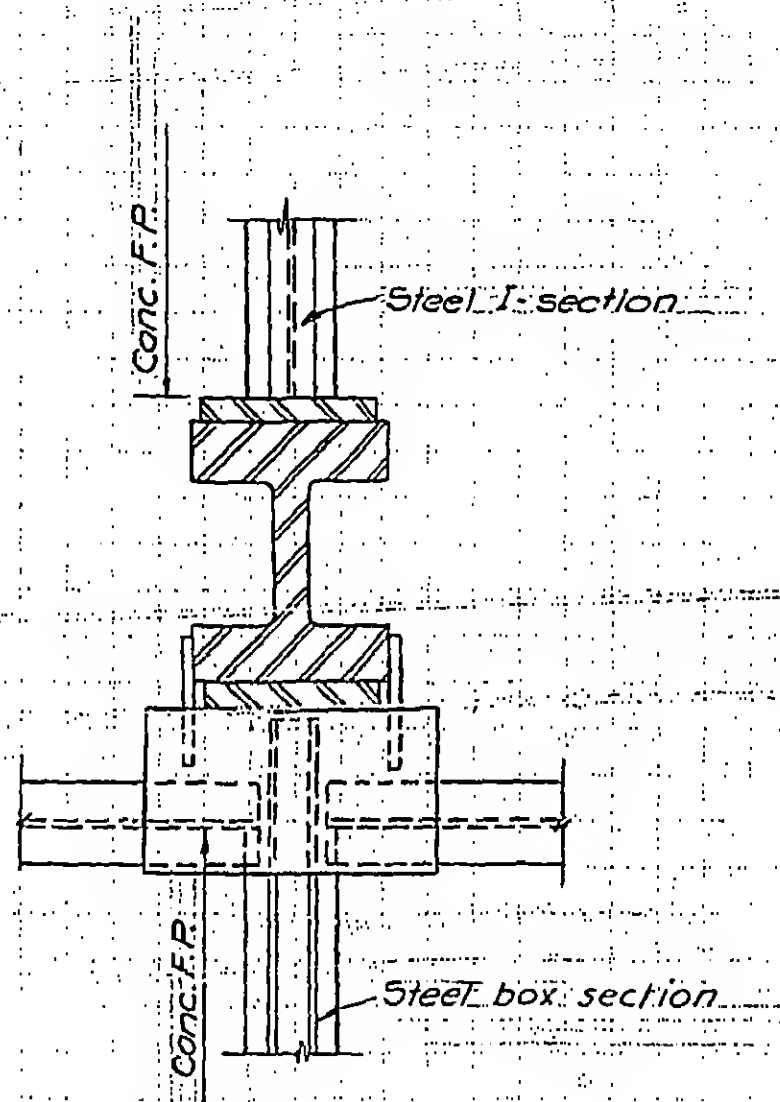
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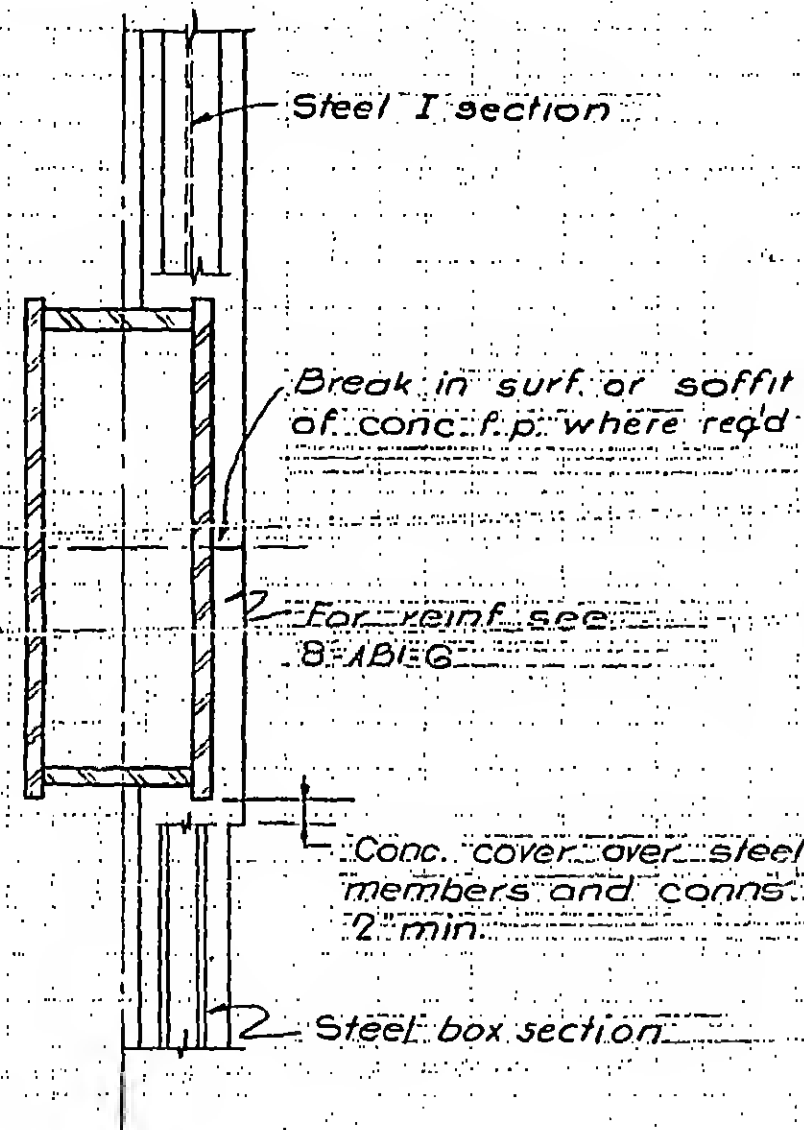
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DATE 3-1-68

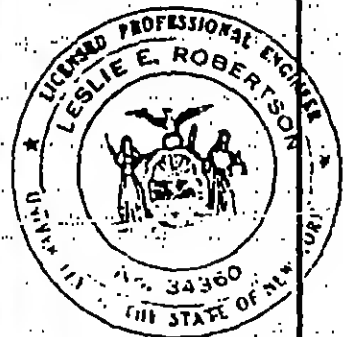
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Detail P



Detail Q



8-AB3-2.4

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TITLE TYP. NARROW SLAB OVER STEEL BEAM

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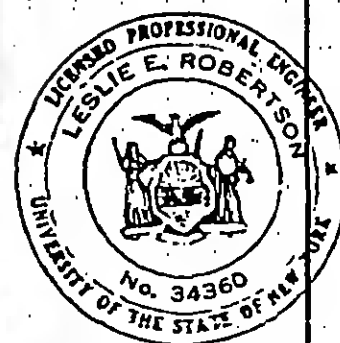
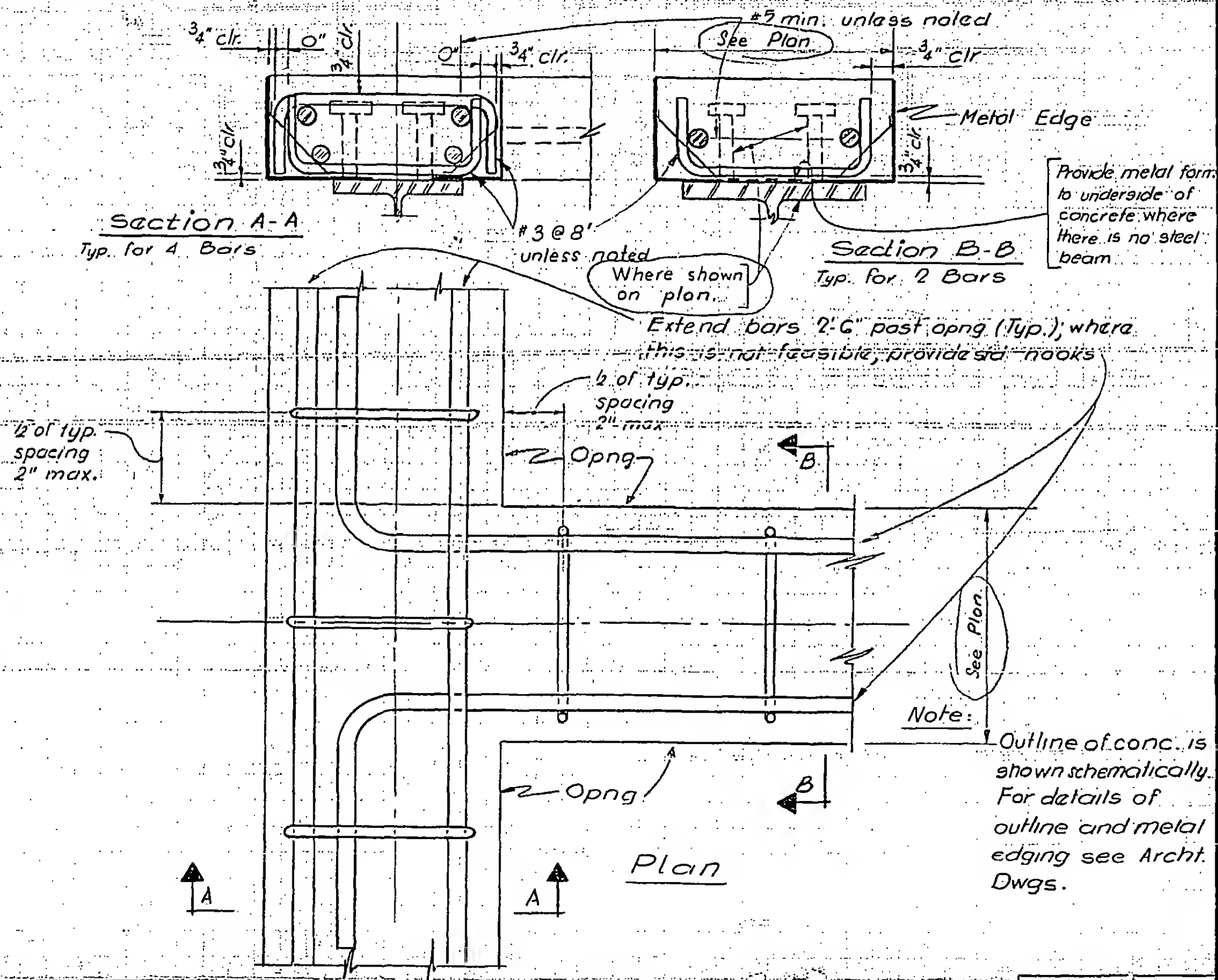
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Section A-A
Typ. for 4 Bars

Section B-B
Typ. for 2 Bars



8-155-3.1

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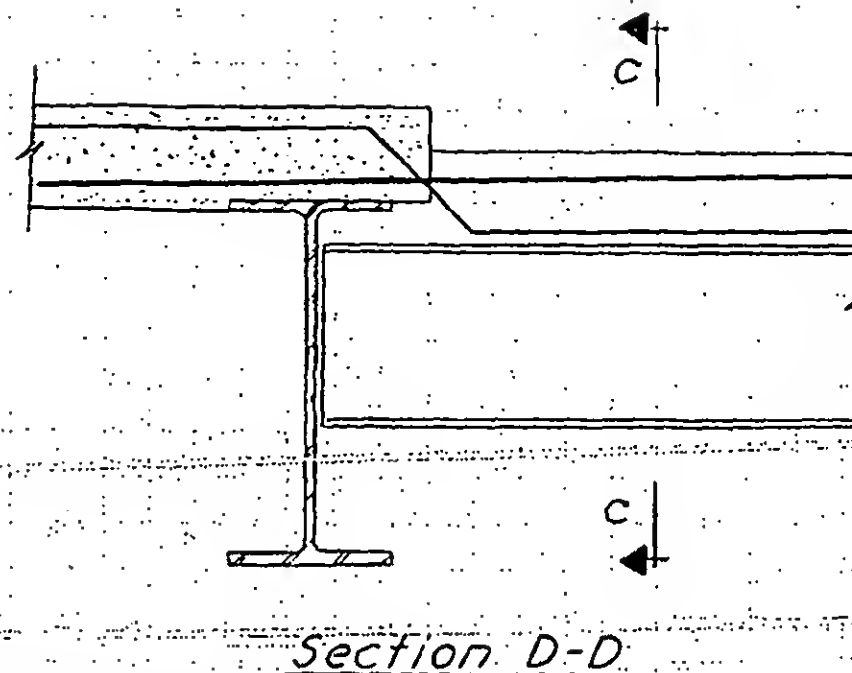
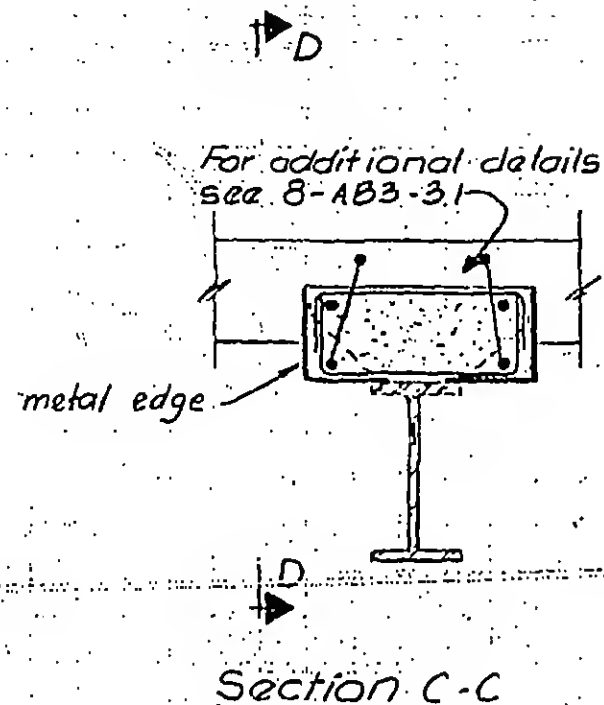
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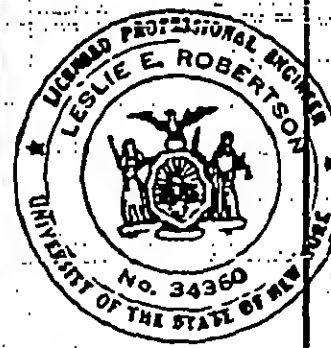
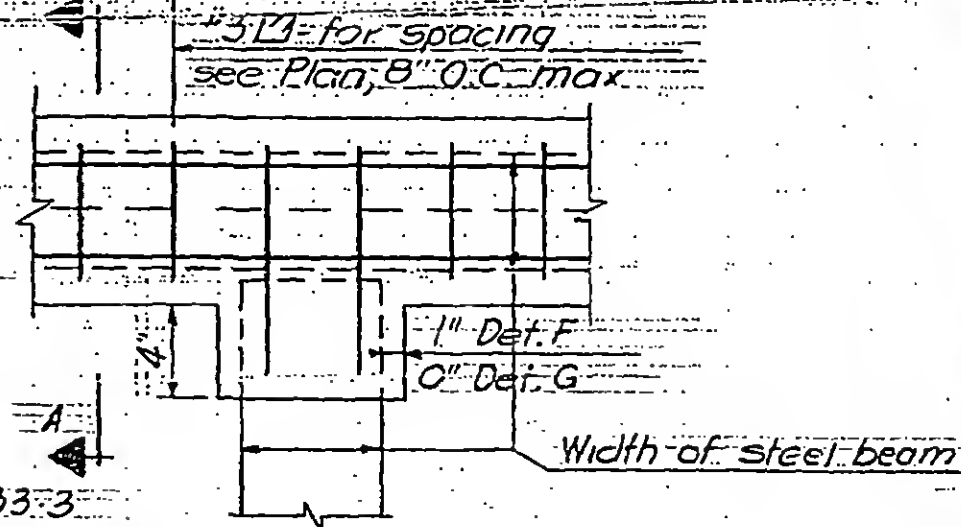
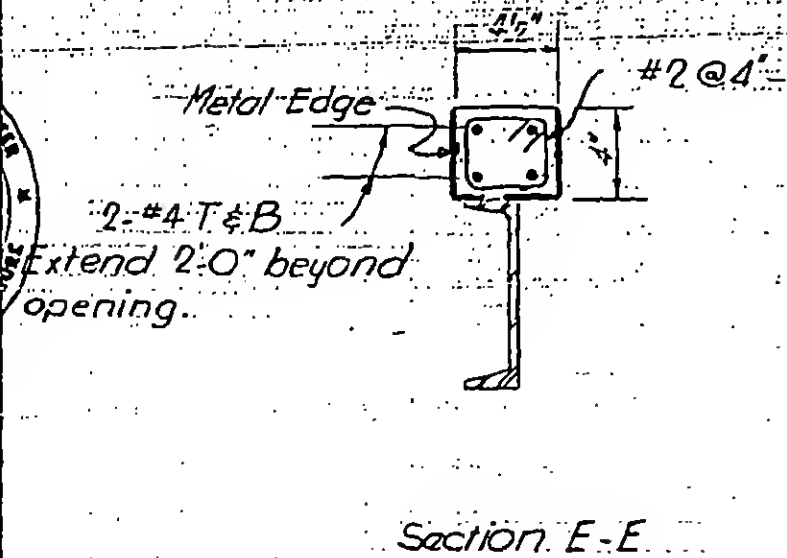
TITLE TYPICAL NARROW SLAB OVER STEEL BEAM

DATE 3-1-68

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DETAIL AT DEPRESSION



8-AB3-3.2

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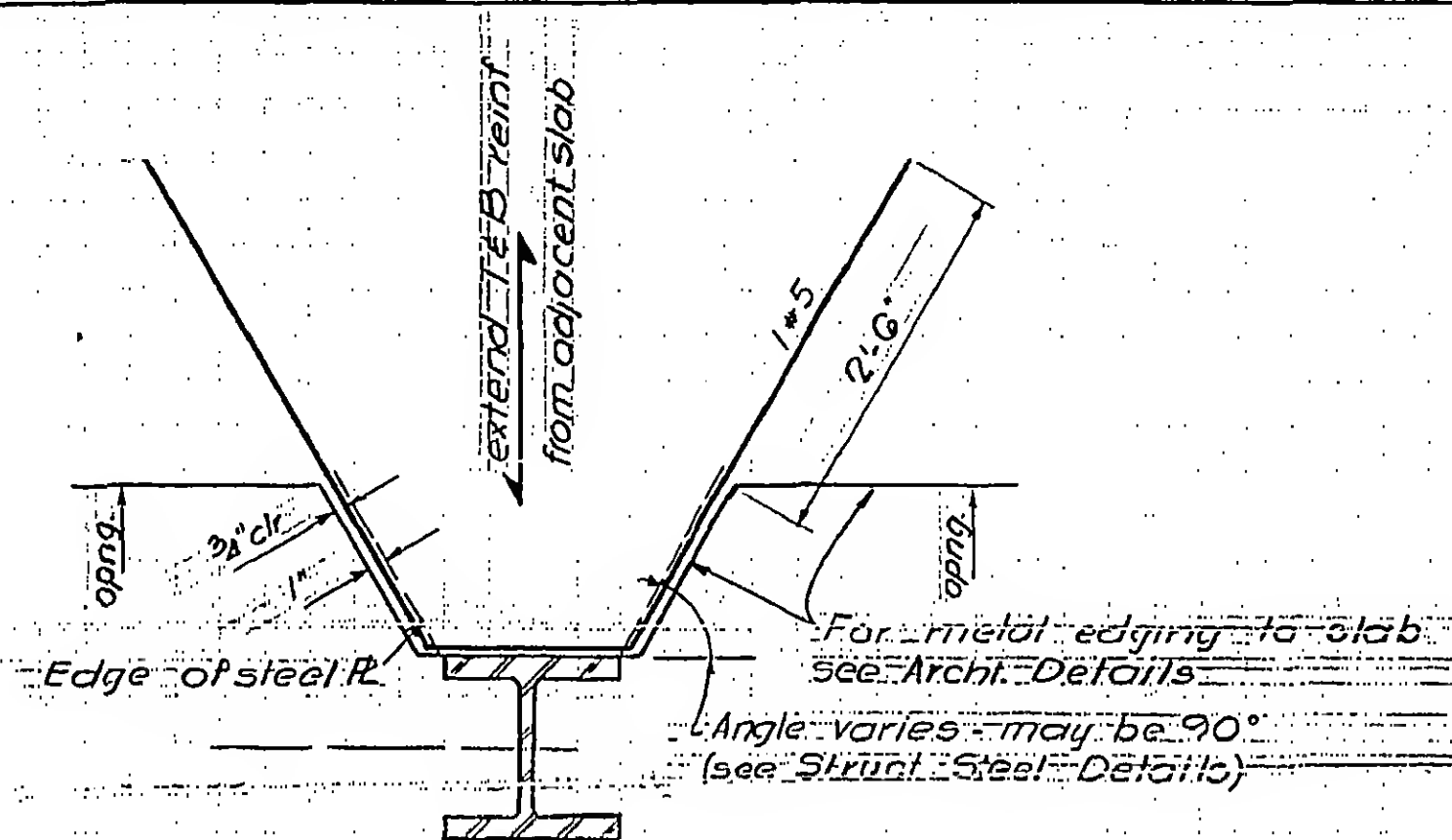
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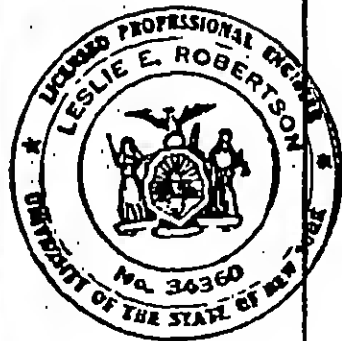
TITLE NARROW SLABS

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Detail H



8-AB3-3.3

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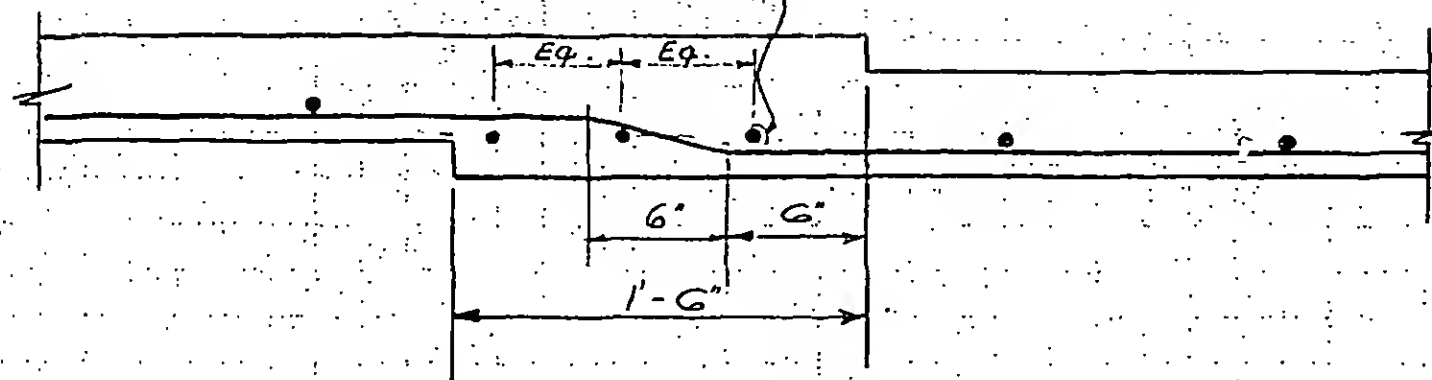
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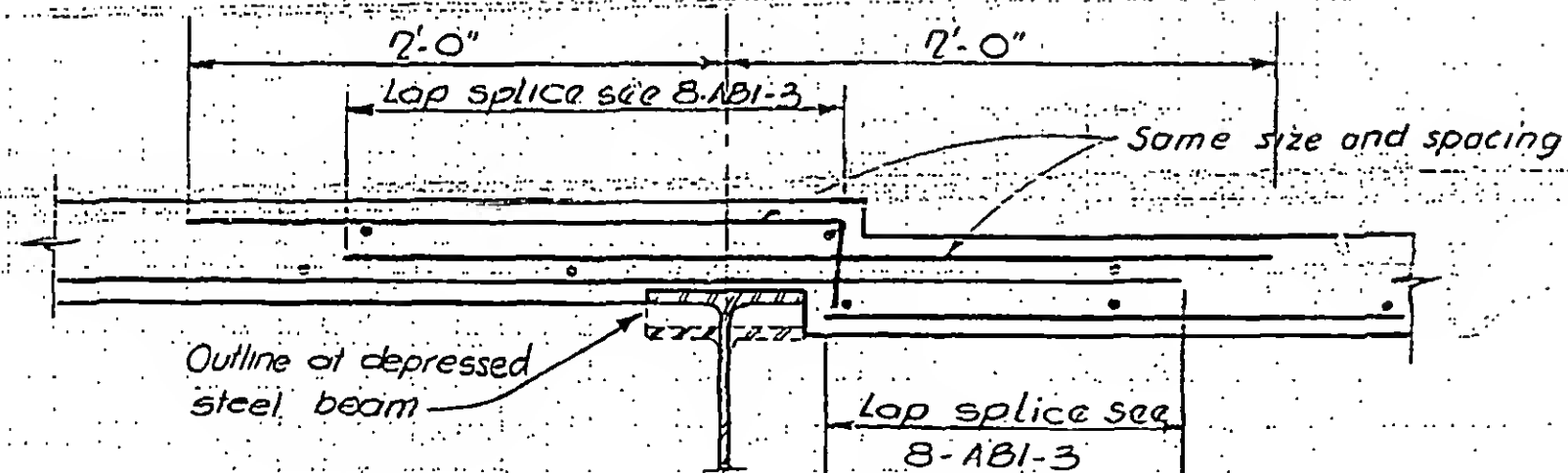
TITLE SECTIONS AT DEPRESSIONS

DATE 3-1-68

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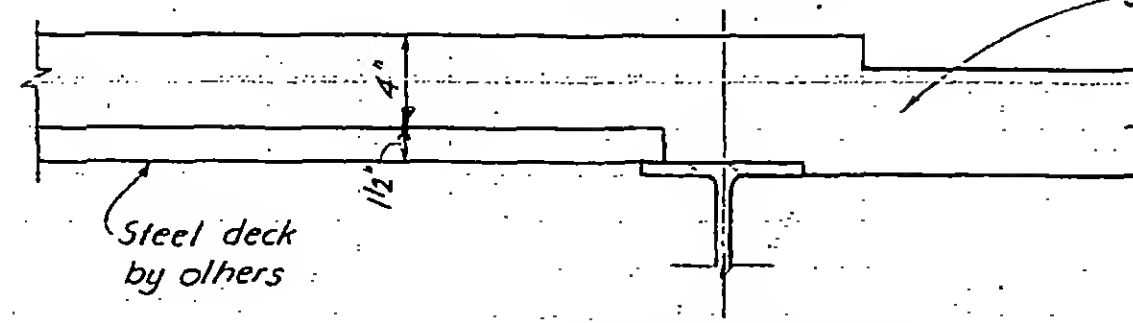
3-#4 unless
noted in Plans

Section A-A



Section B-B

See section above for reinforcing

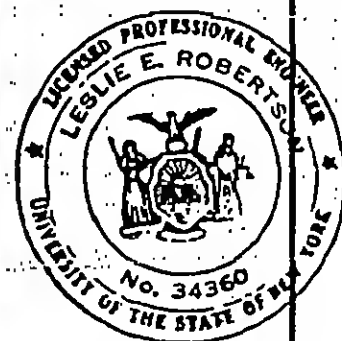


Section B-B

At Steel Deck

Notes:

1. For details not shown see 8-ABI-3
2. For sequence of bar placement see Plans.



8-AB3-4.1

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TITLE

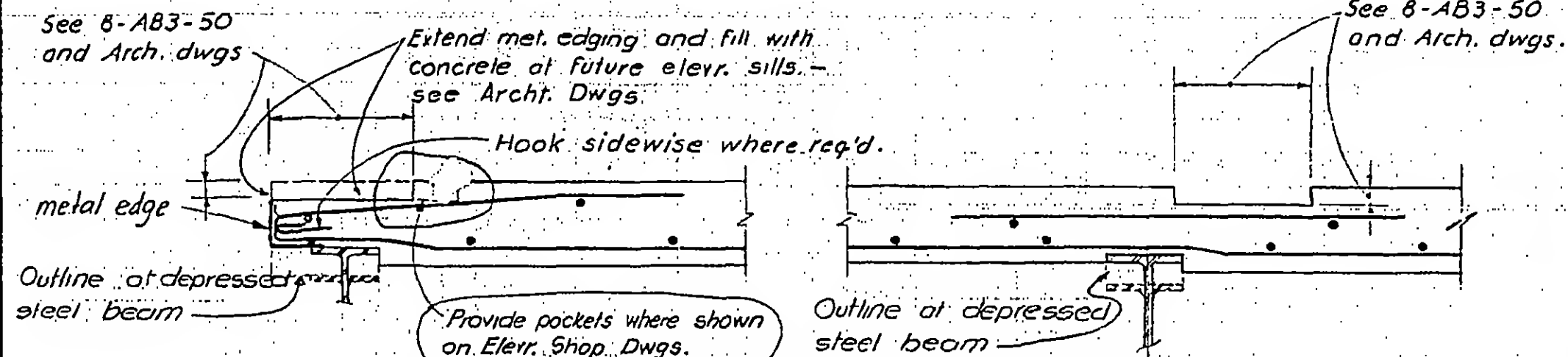
SECTIONS AT DEPRESSIONS

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For size and length of bars, raiser bars, and other details not shown, see Plans and 8-AB1-3



8-AB3-4.2

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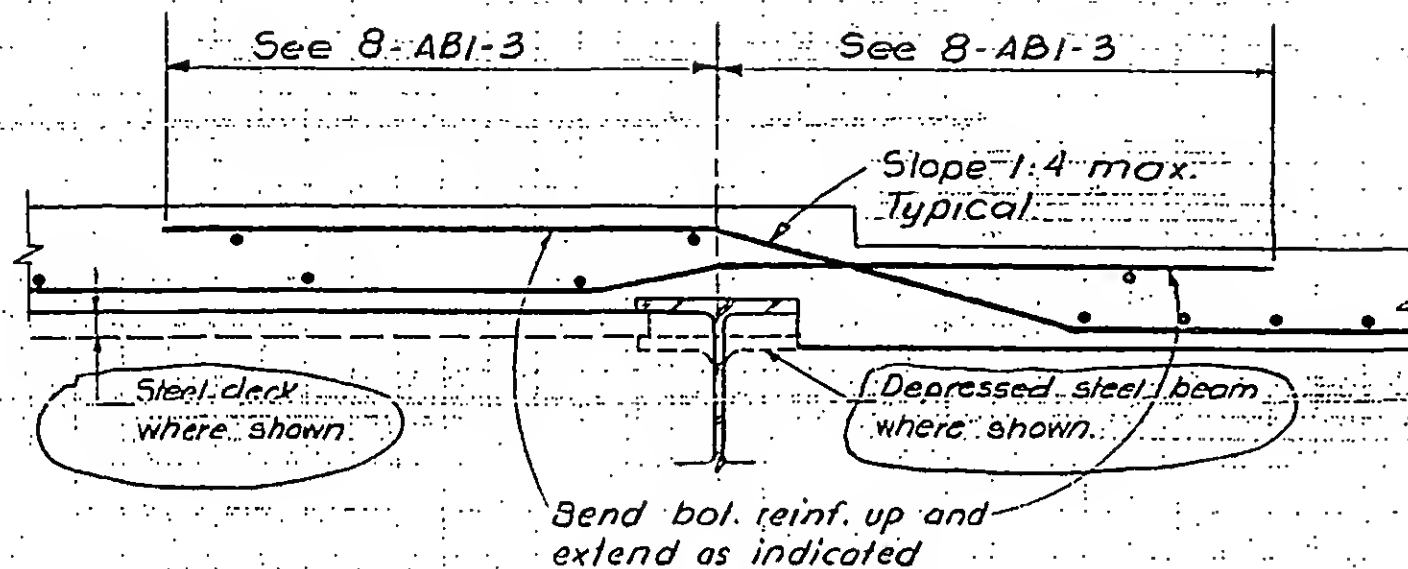
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TITLE SECTIONS AT DEPRESSIONS

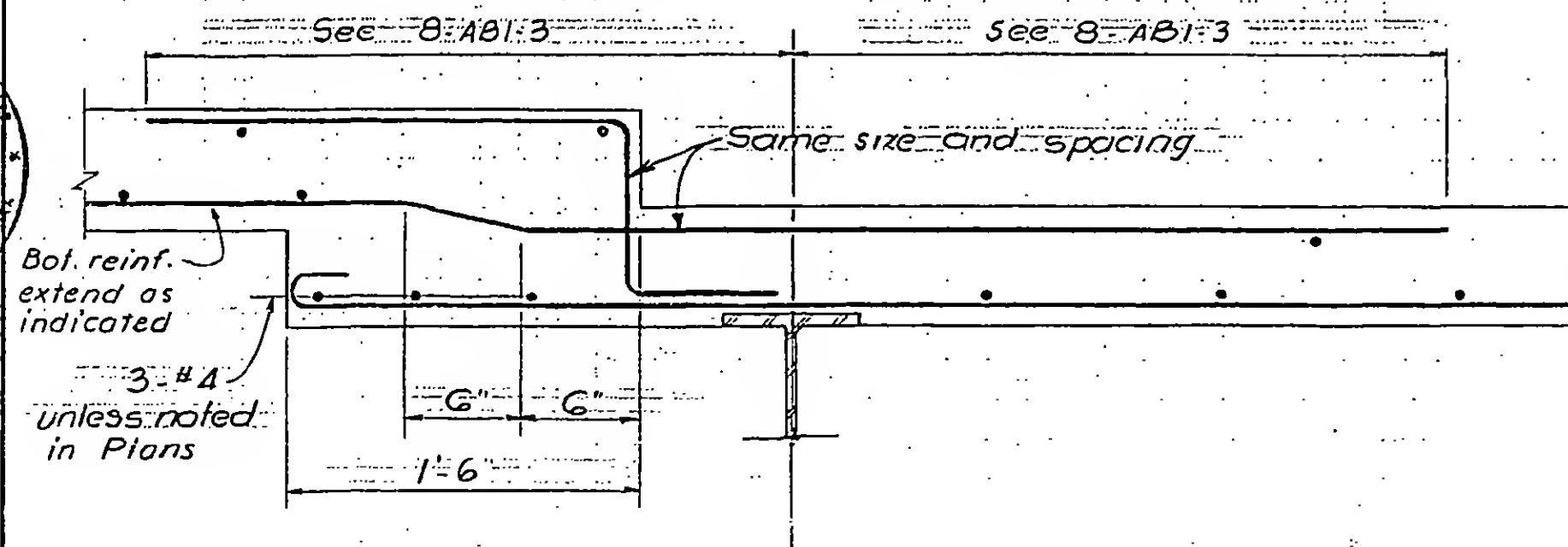
DATE 3-1-68

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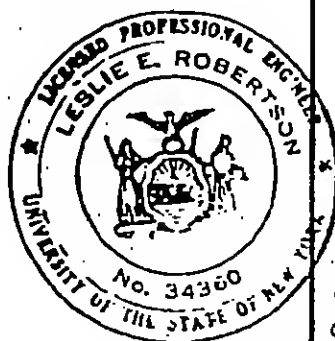


Section E-E



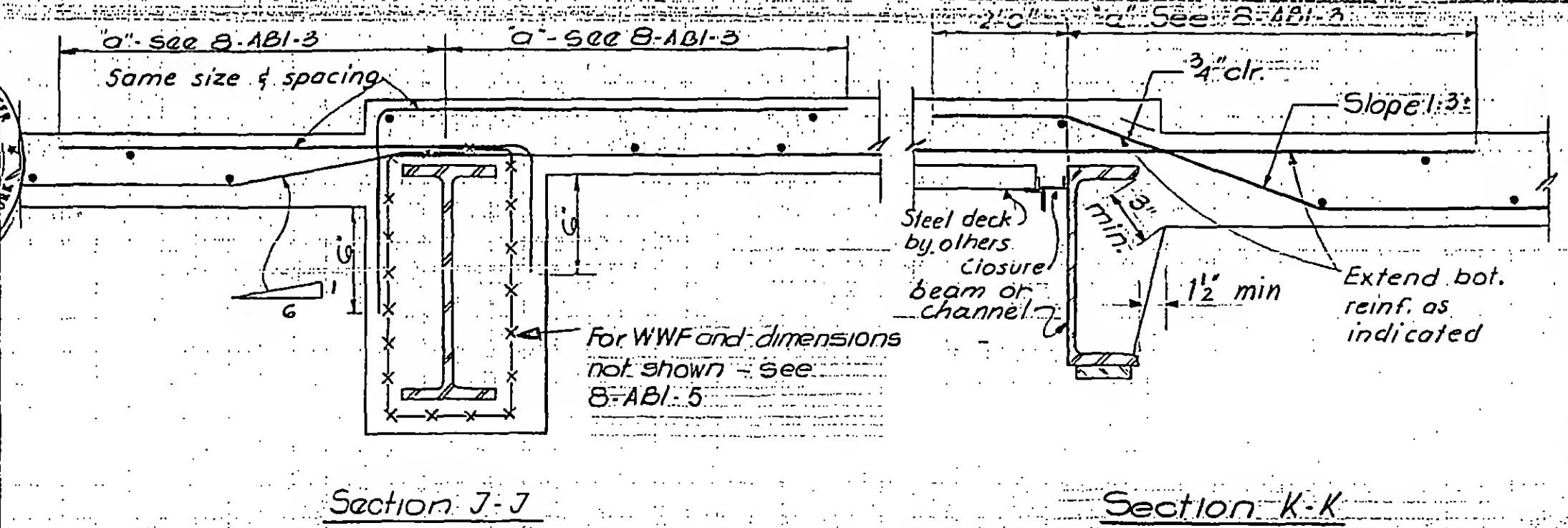
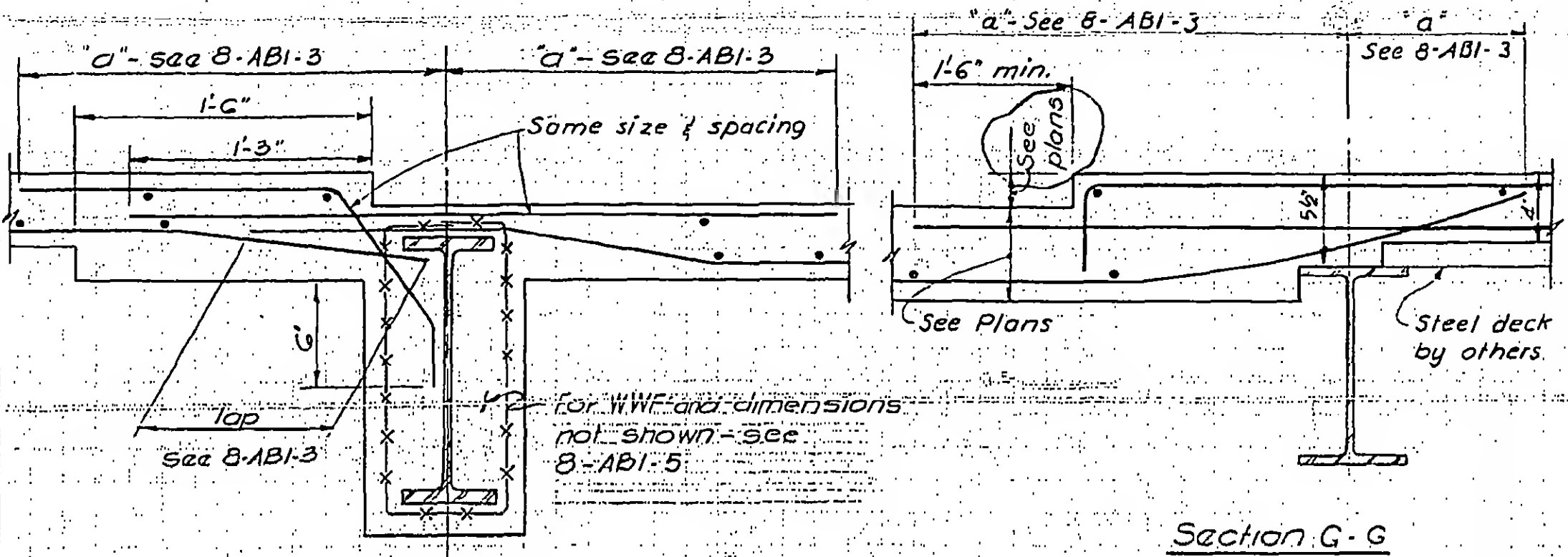
Section F-F

8-AB3-4.3



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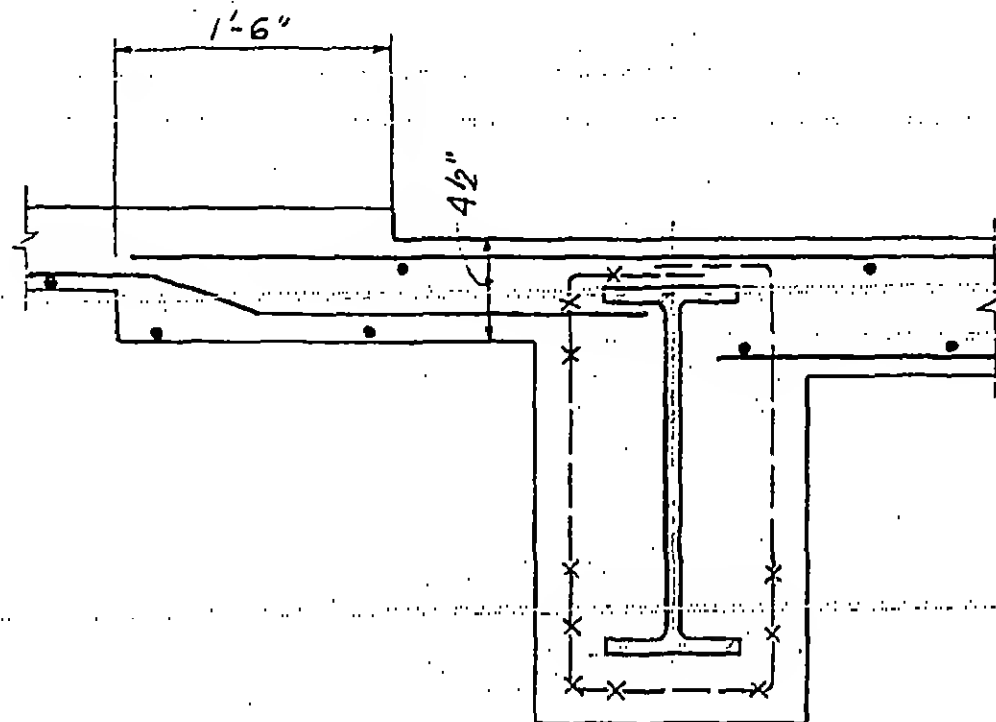
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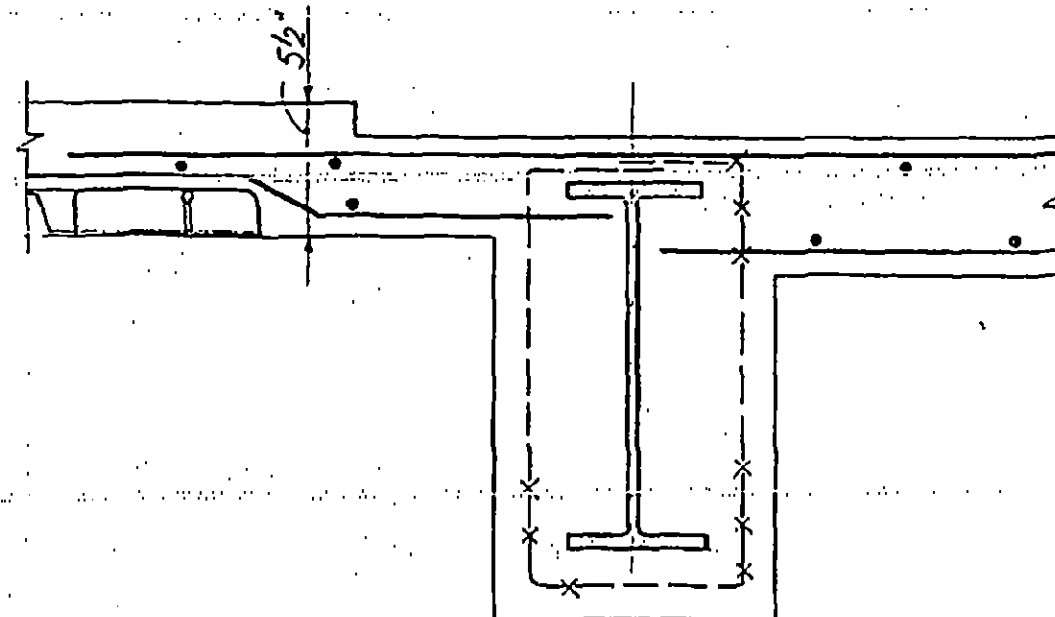
TITLE SECTIONS AT DEPRESSIONS

DATE 3-1-68

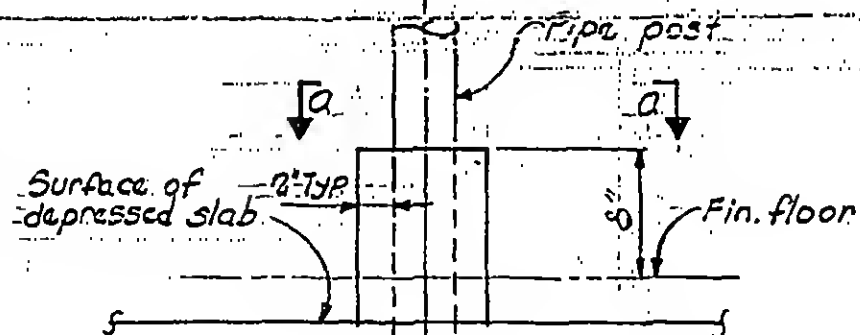
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Section M-M



Section N-N



Section L-L

Concrete backing for
membrane w.p.
Typical for depressed
slabs where membrane
w.p. is provided - See
Arch'tl. DWGS.

Section a-a

8-AB3-4.5

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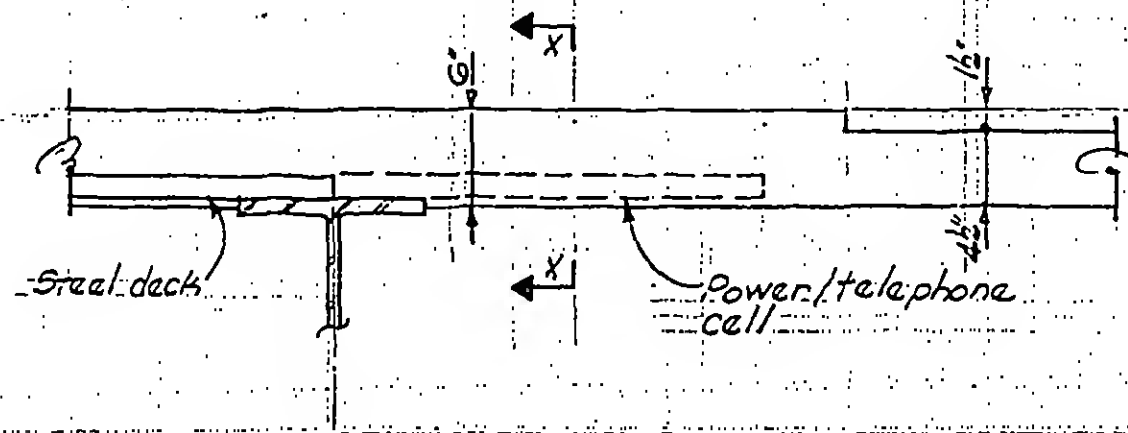
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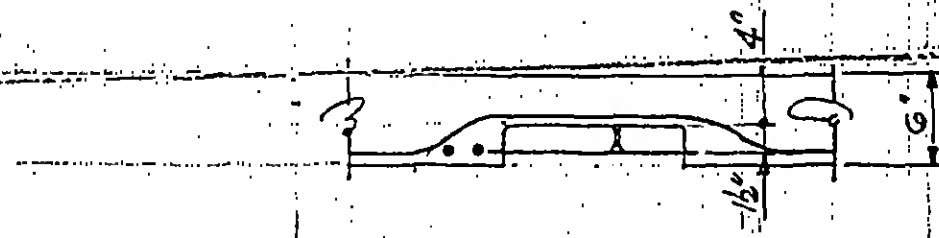
TITLE SECTIONS AT DEPRESSIONS

DATE 3-1-68

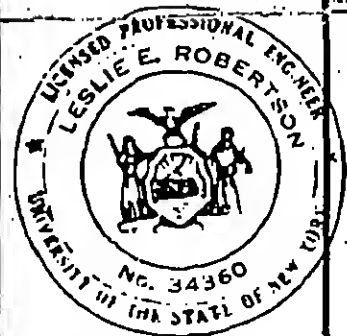
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Section P-P



Section X-X



8-AB3-4.6

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

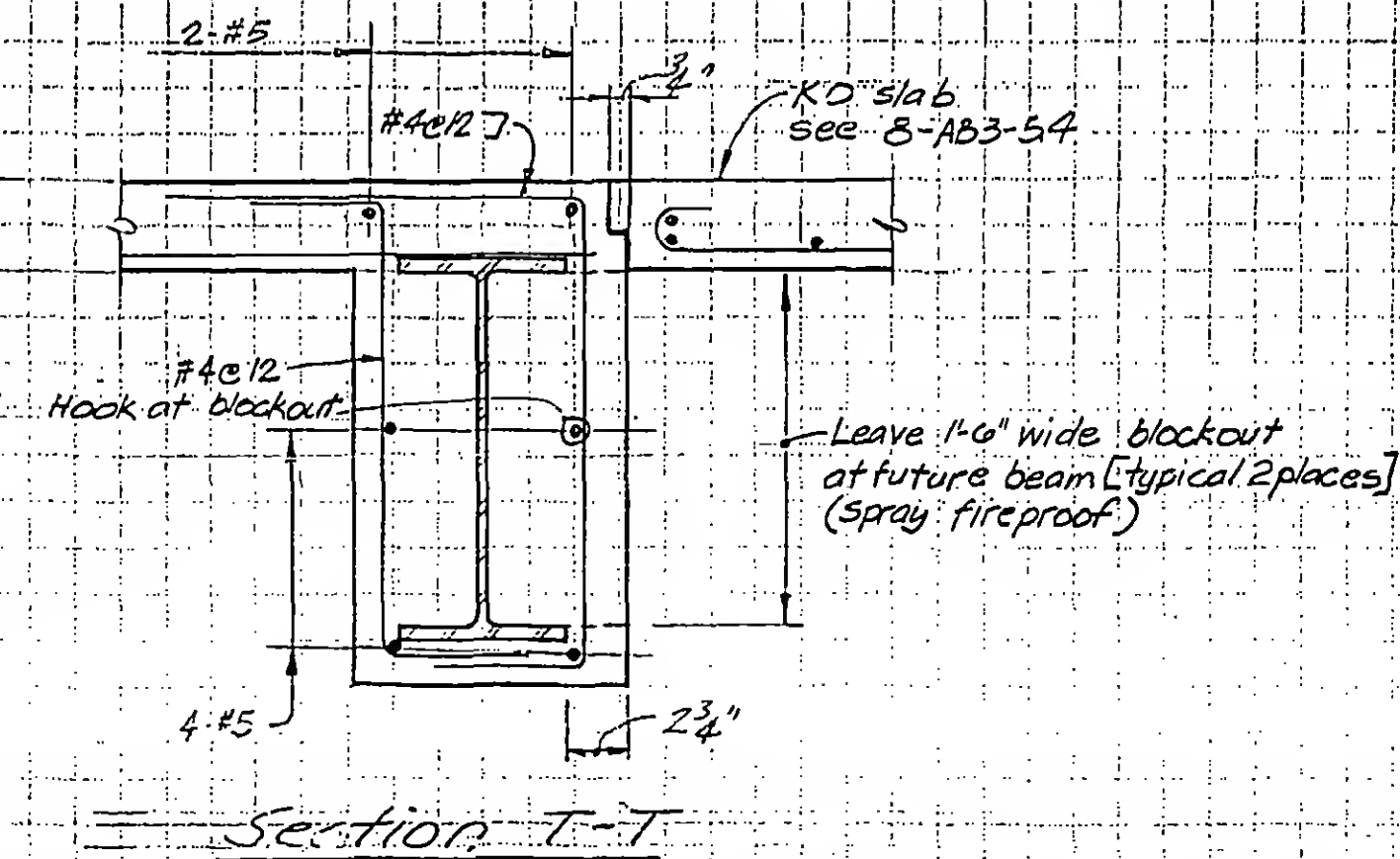
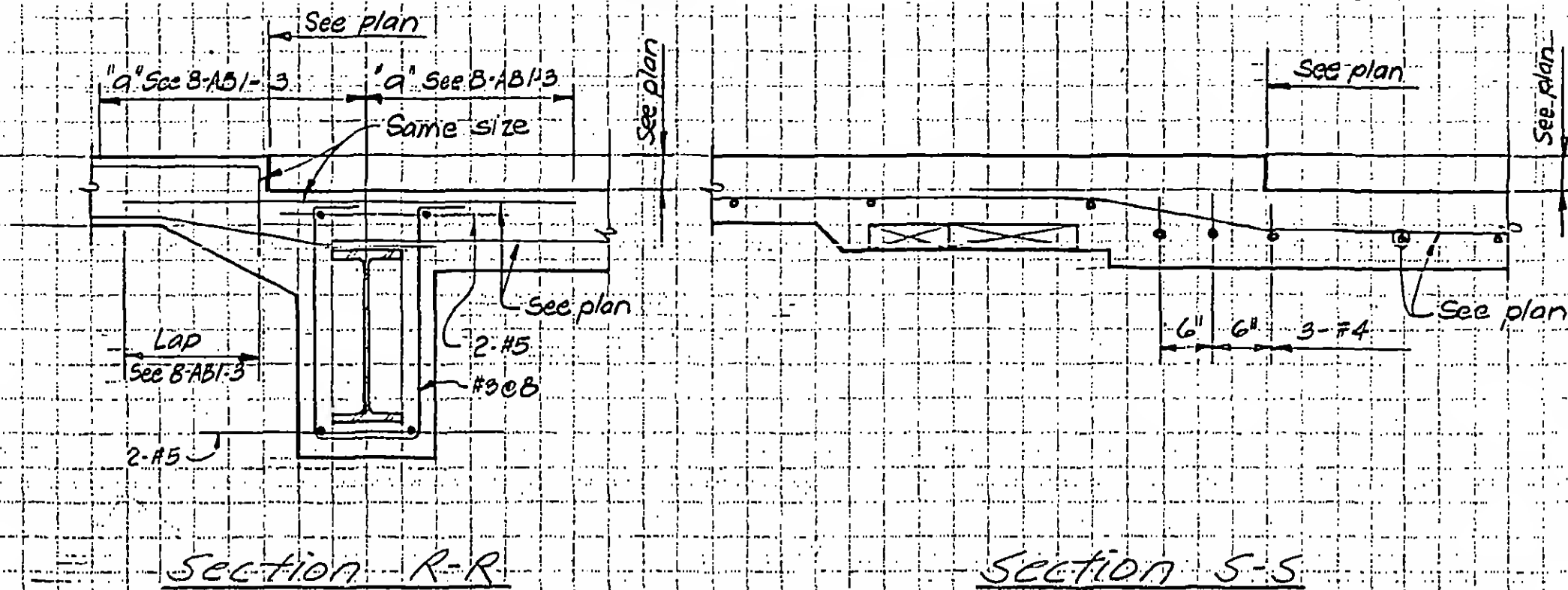
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TITLE SECTIONS AT DEPRESSIONS

DATE 6-18-71

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DESIGNED

DRAWN

REVIEWED

8-AB3-4.7

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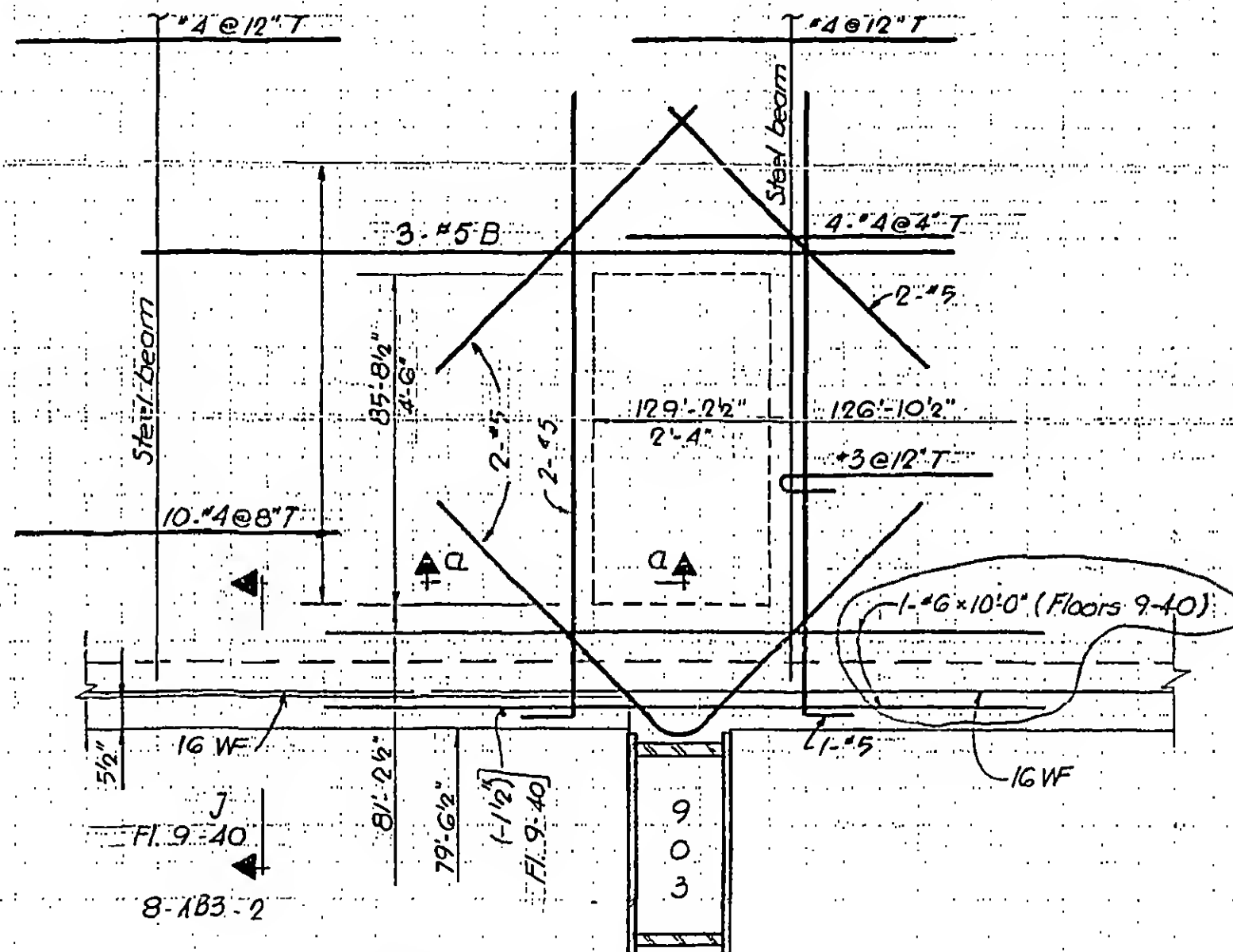
PROJECT THE WORLD TRADE CENTER

TITLE KNOCK OUT SLAB DETAILS

DATE 3-1-68

REVISIONS

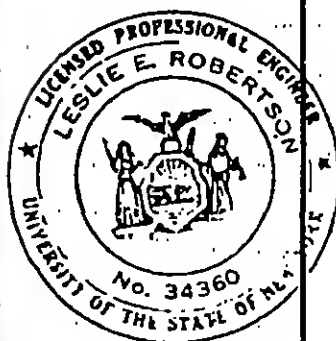
2-11-69



Typical Floors 5 to 7, & Floors 10-40
as noted Floors 8 & 9

Notes:

1. No K.O. Slab at Floor 8
2. At Floor 9 provide top bars as shown in Plan
3. For length of bars and other information see 8-AB1-3 and 5, and Plans



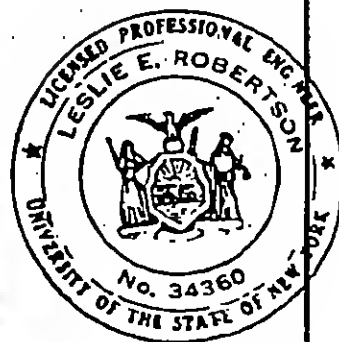
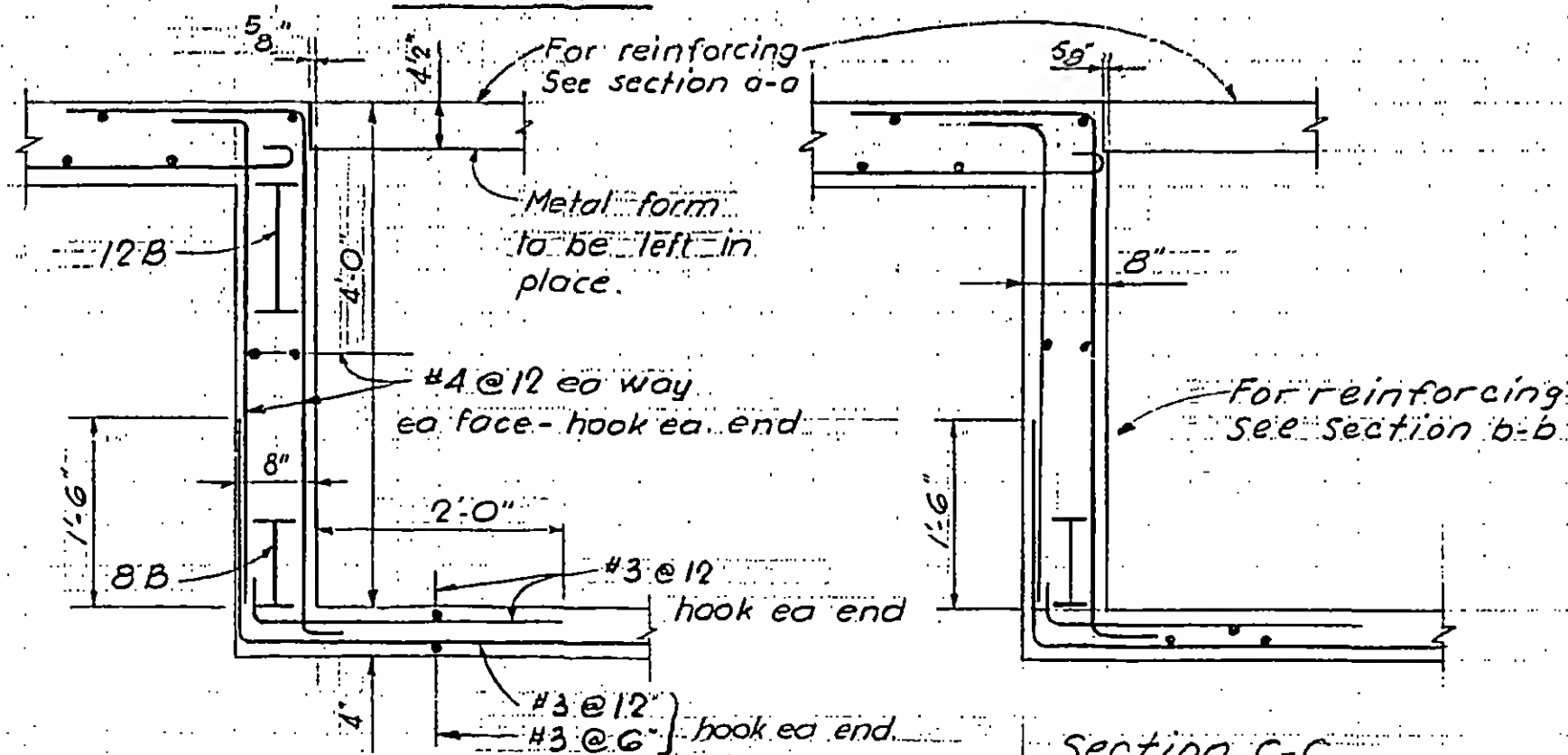
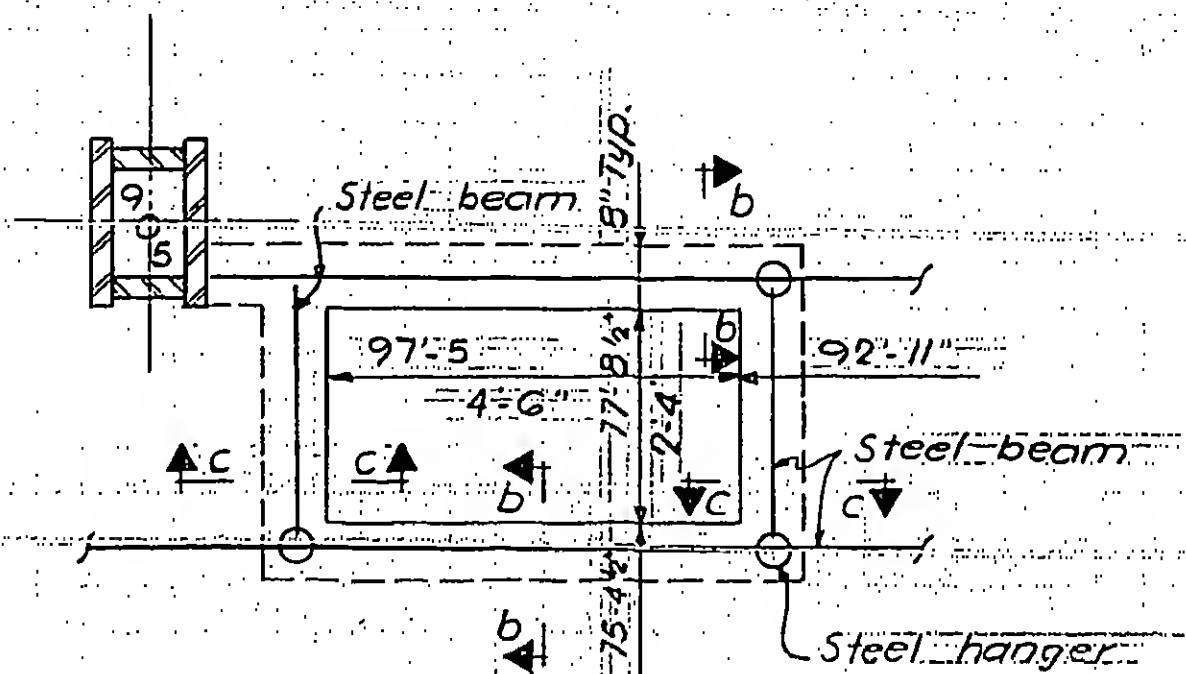
8-AB3-5.1

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8-AB3-5.2

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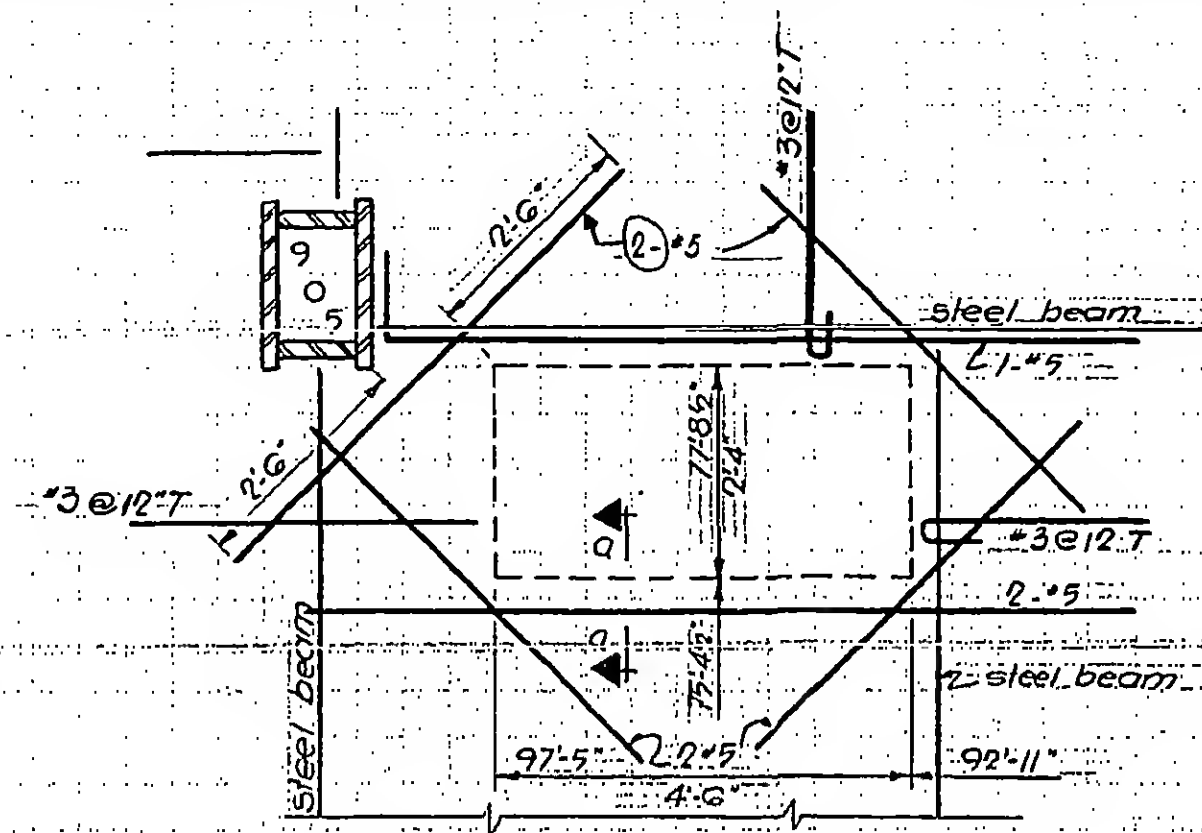
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TITLE KNOCK - OUT SLAB DETAILS

DATE 3-1-68

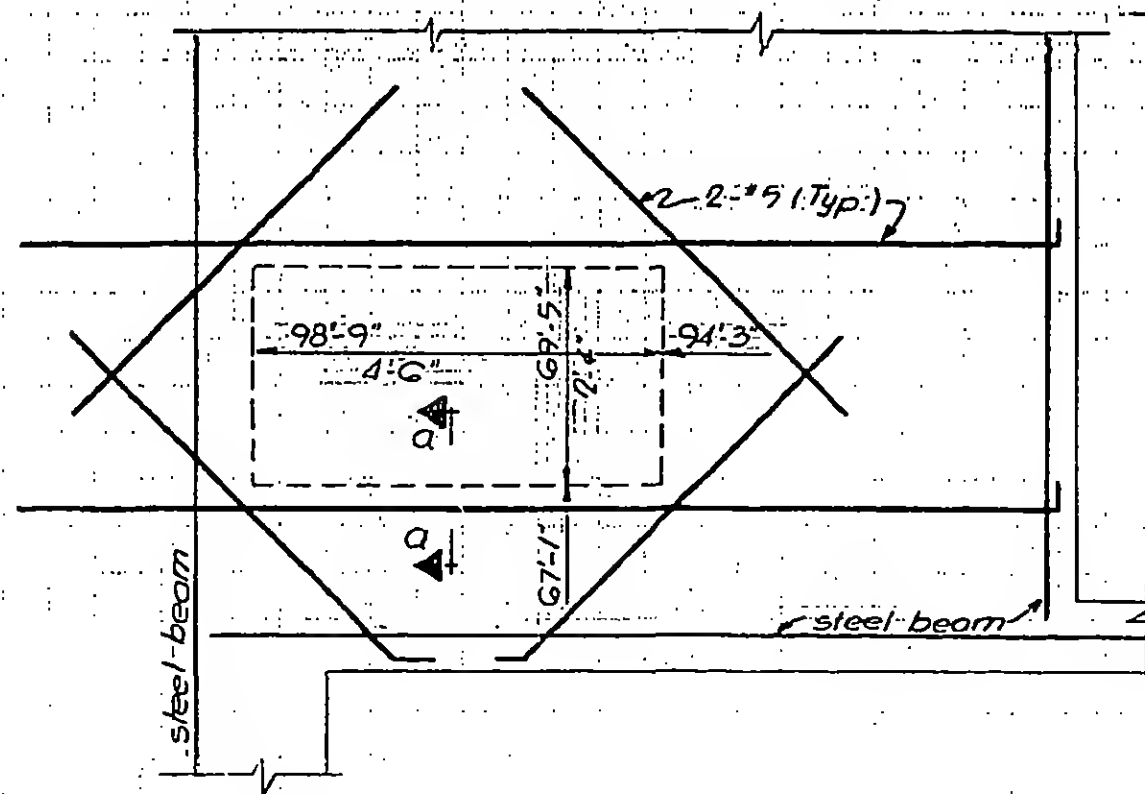
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Floors 44 - 75

Floor 49 shown. Other floors similar; for modifications see Plans



Floors 75 - 107

Floor 87 shown. Other floors similar; for modifications see Plans



8-AB3-5.3

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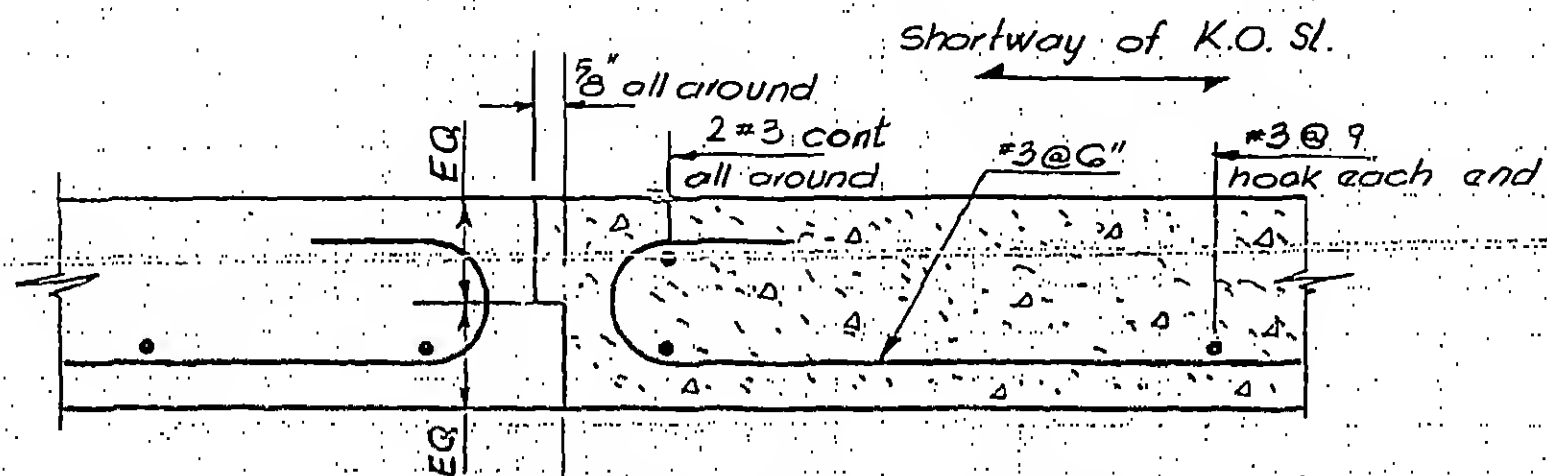
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TITLE TYPICAL KNOCK-OUT SLAB DETAIL

DATE 3-1-68

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Knock out slab - to be concreted
7 days or more after main slab

Dimension shown in plan

Section a-a

For Detail Plans see 8-AB3-5.1 thru 5.3 & plans.



8-AB3-5.4

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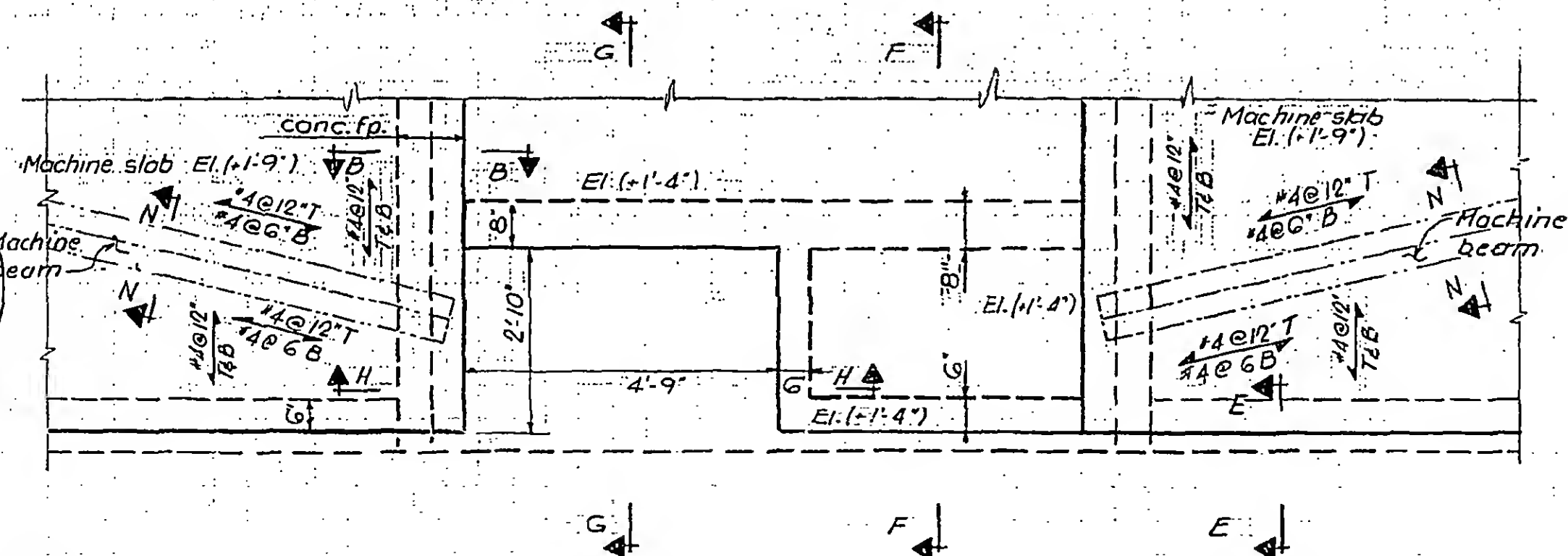
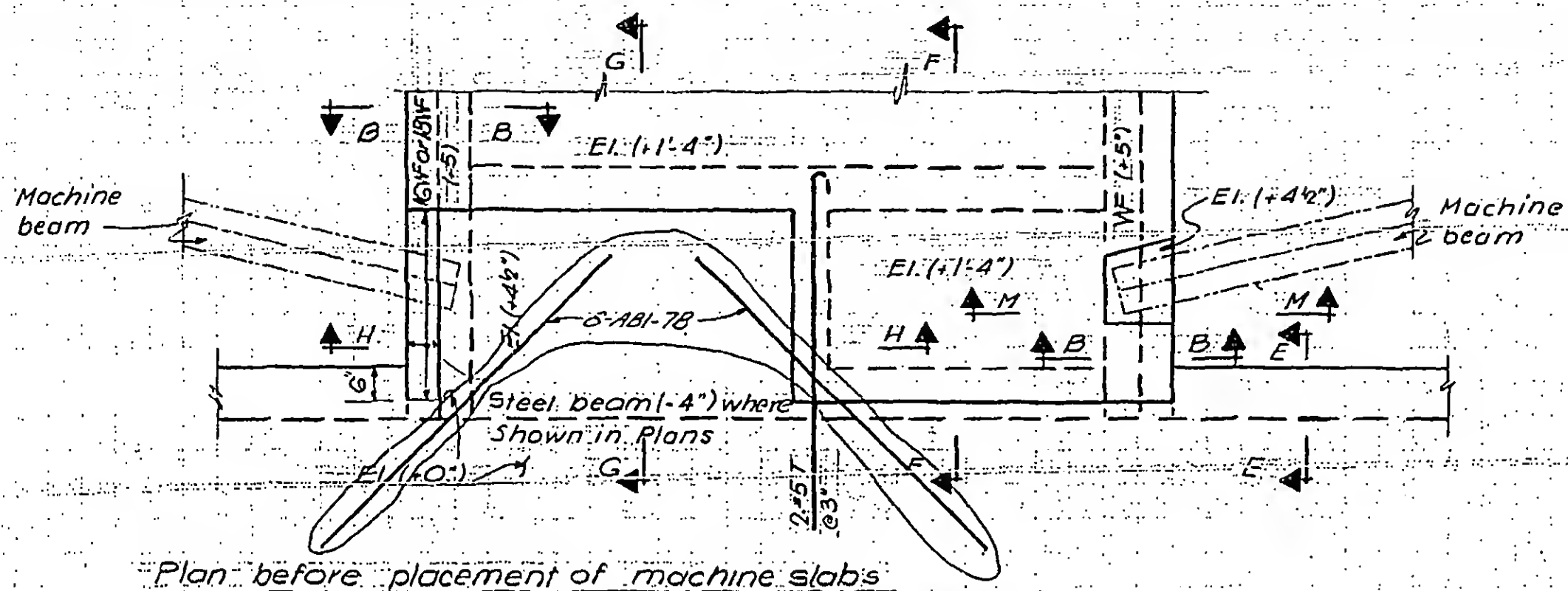
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TITLE DETAILS AT LOCAL ELEVATOR MACHINE ROOM

DATE 3-1-68

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Notes:

Floor 56 shown

Floors 18, 26, 34, G3 & 88 similar

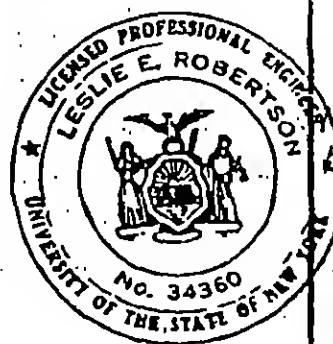
Floors 69, 95 & 102 opp hand

Plan after placement of machine slabs

Detail S

PLAN AT MACHINE ROOM FLOORS

8-AB3-G.1



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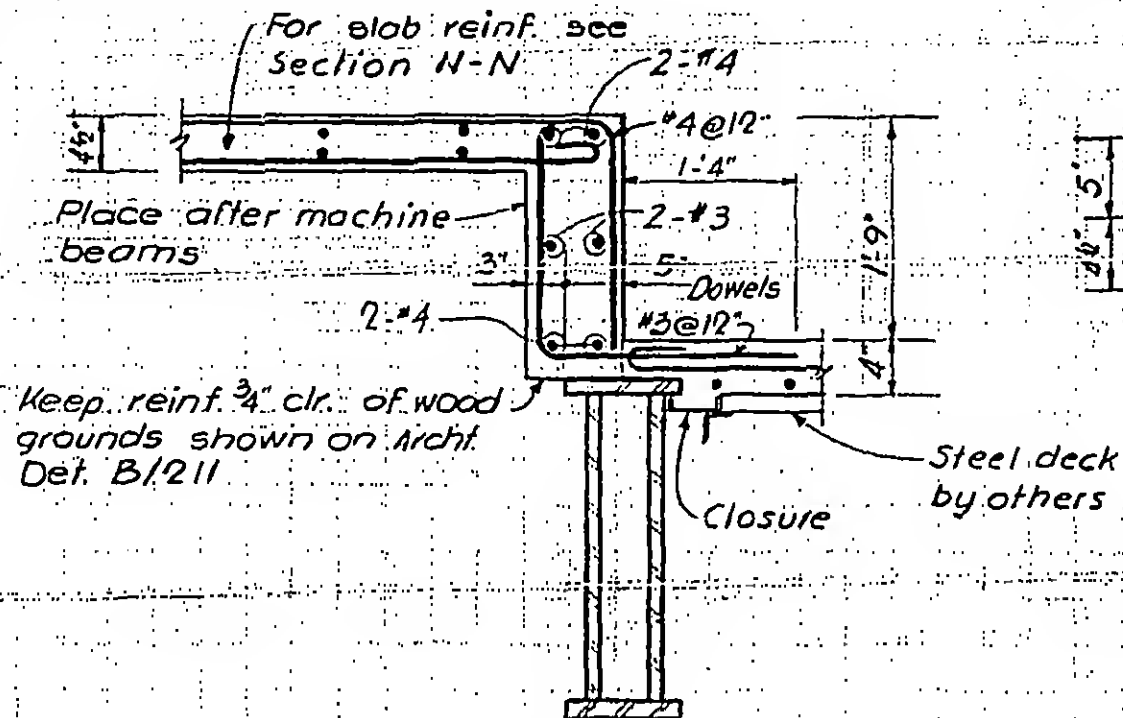
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TITLE SECTIONS AT LOCAL ELEVATOR MACHINE ROOMS

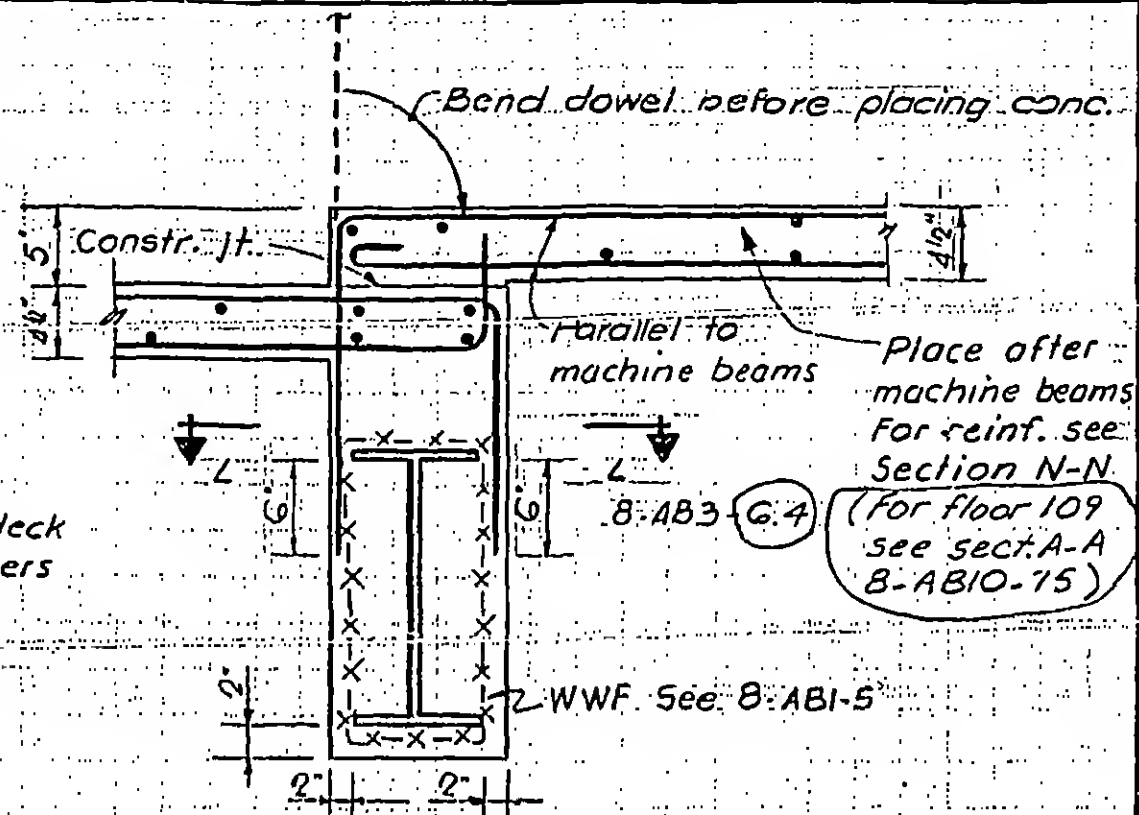
DATE 3-1-68

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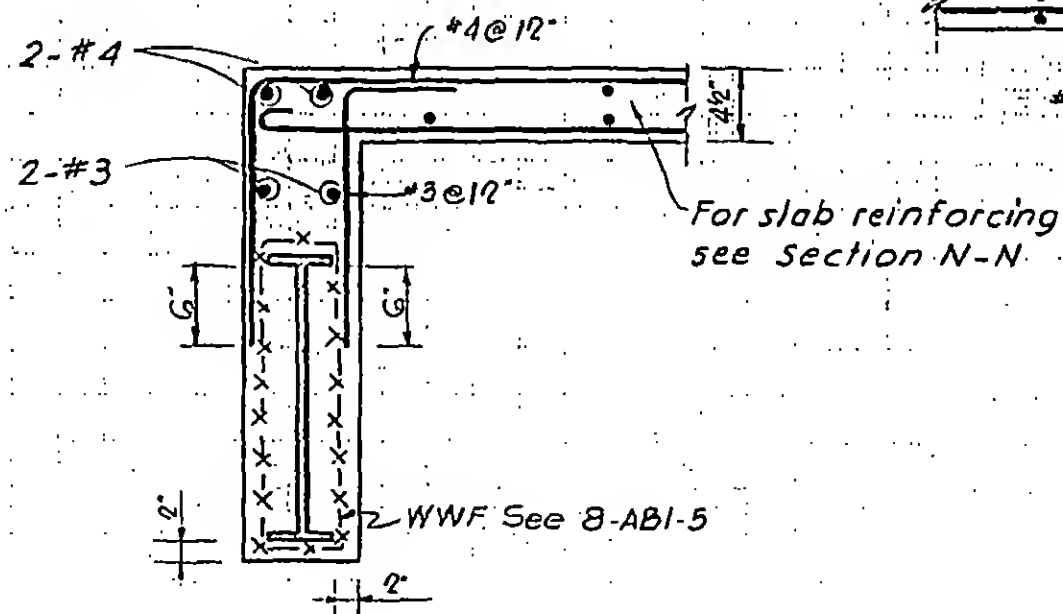
12-1-70



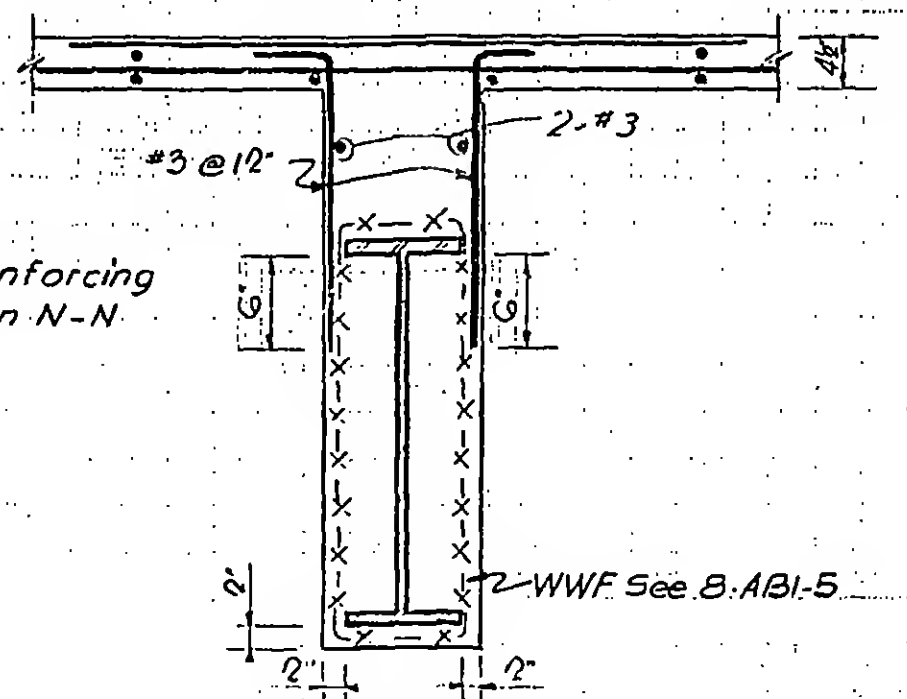
Section A-A



Section B-B



Section C-C



Section D-D



B-AB3-G.2

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

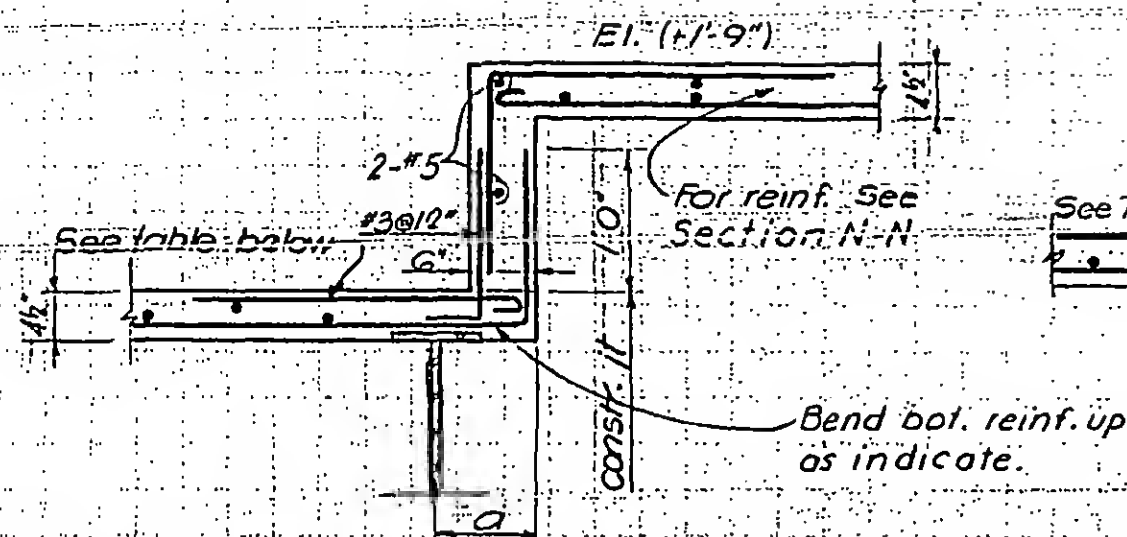
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT LOCAL ELEVATOR MACHINE ROOMS

DATE 3-1-68

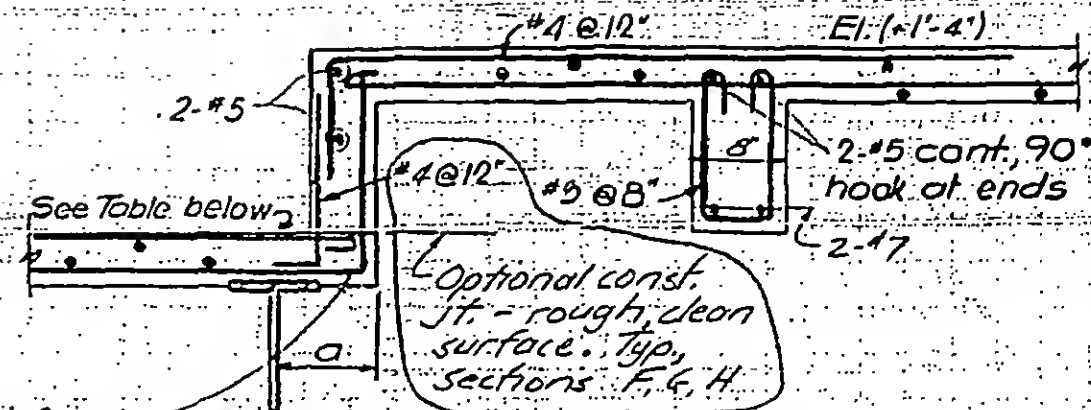
REVISIONS

3-12-69

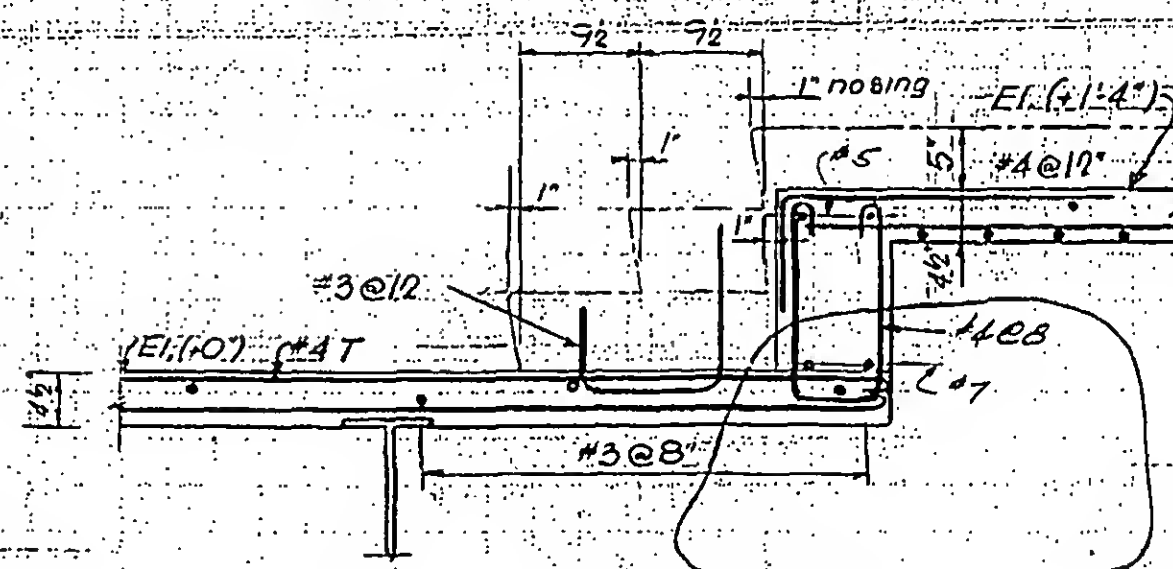


Section E-E

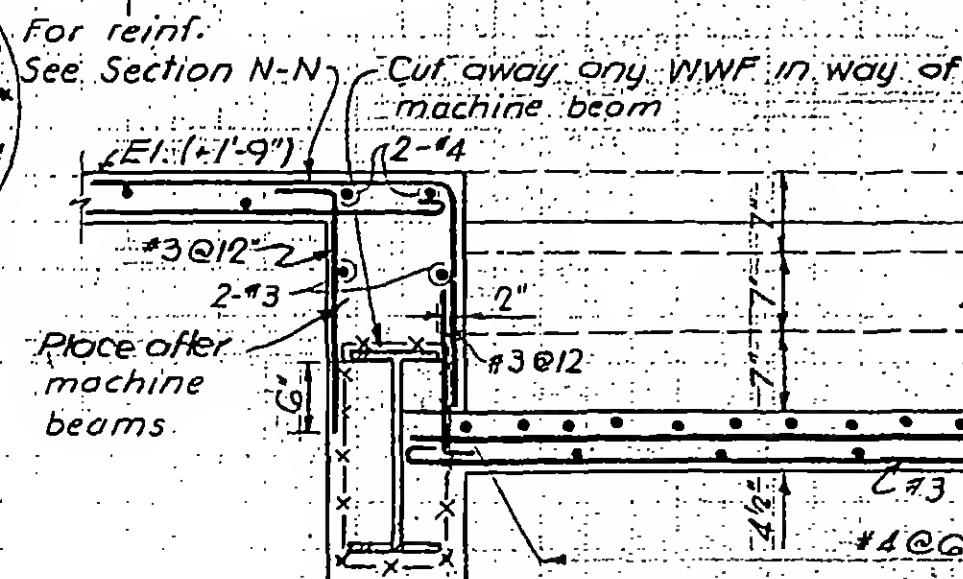
Table of Top Bars for Sect. E-E & F-F	
a	Reinforcing
1'-0 1/4" to 3'-0"	#4 @ 6"
1'-0" or less	#3 @ 12"



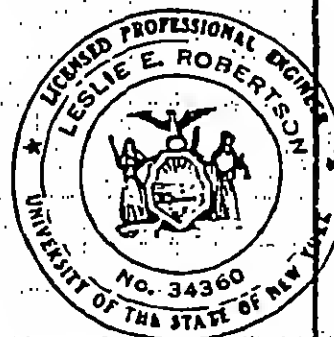
Section F-F



Section G-G



Section H-H



8-AB3-G-3

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

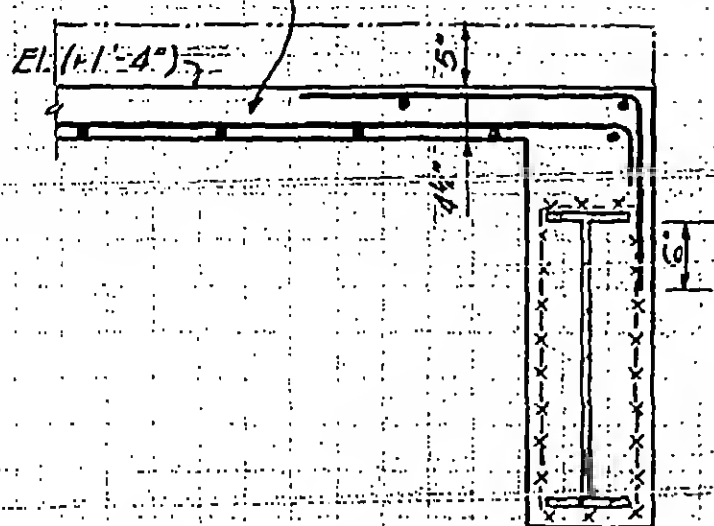
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

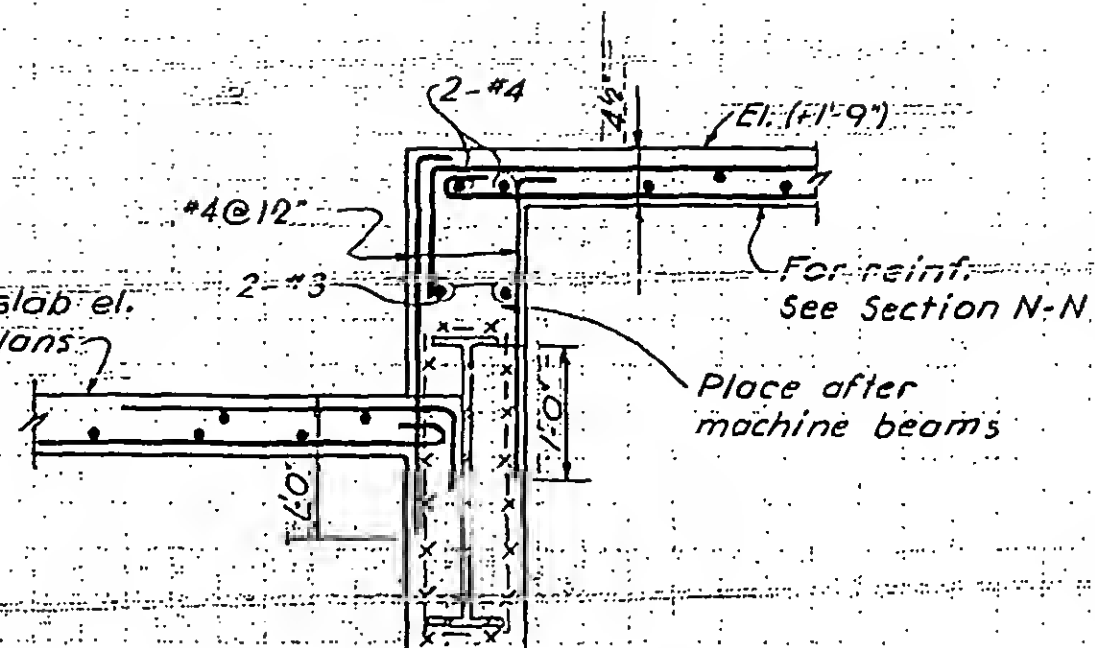
TITLE SECTION AT LOCAL ELEVATOR MACHINE ROOMS

DATE 3-1-68

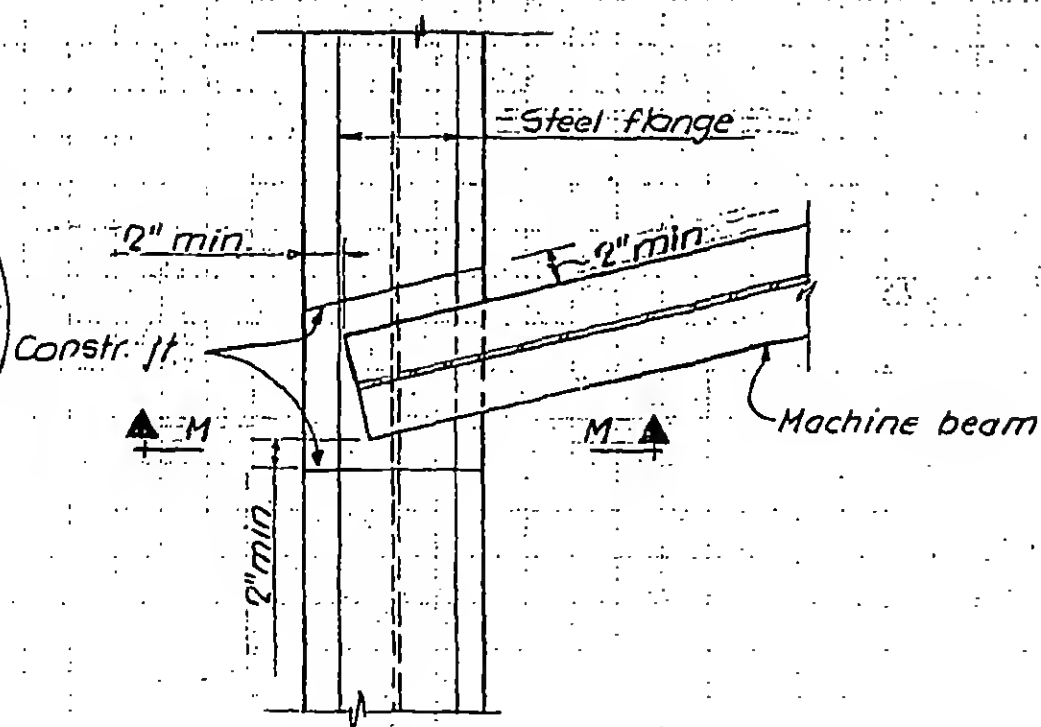
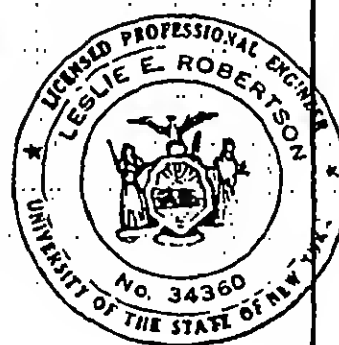
REVISIONS

For slab reinf. see Plan
and 8-AB1-3

Section J-J

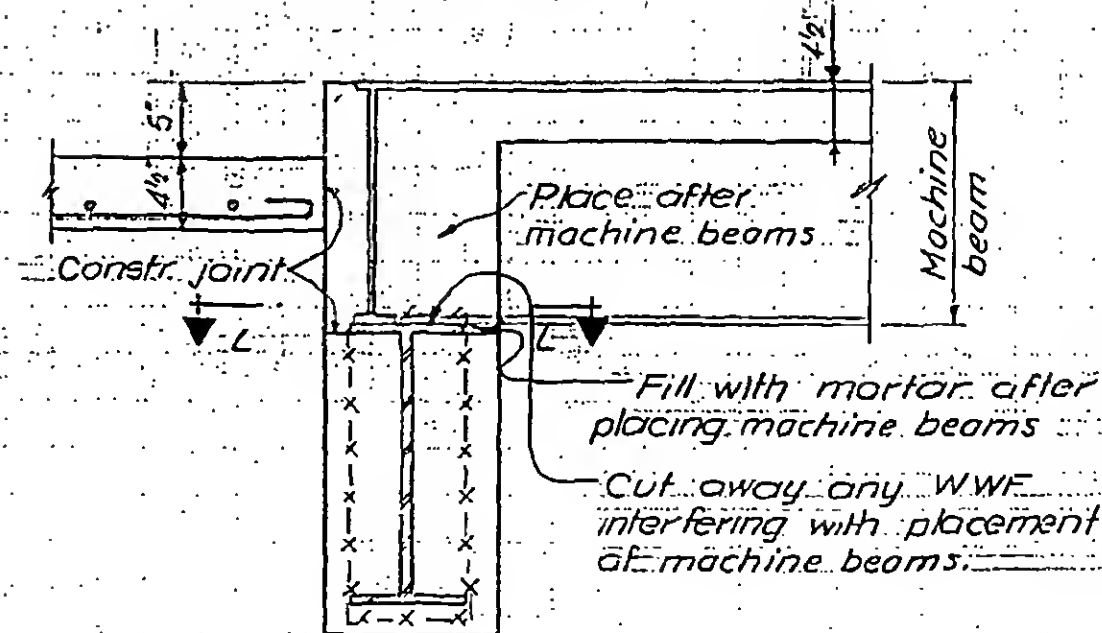
For slab el.
See Plans

Section K-K



Plan L-L

Typical at Machine Beam Pocket



Section M-M

8-AB3-G.4

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

PROJECT

THE WORLD TRADE CENTER

TITLE

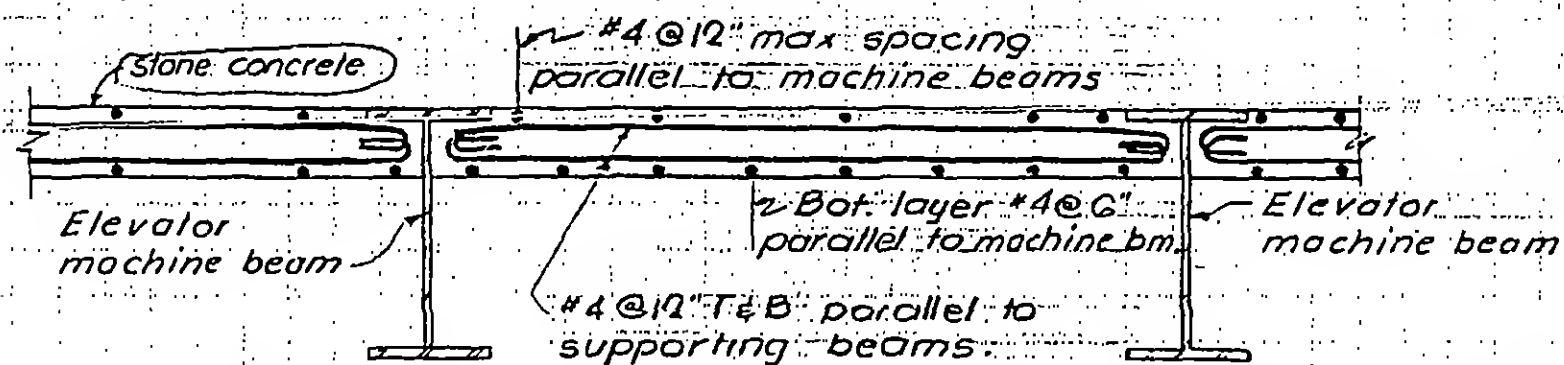
SECTIONS AT LOCAL ELEVATOR MACHINE ROOMS

DATE

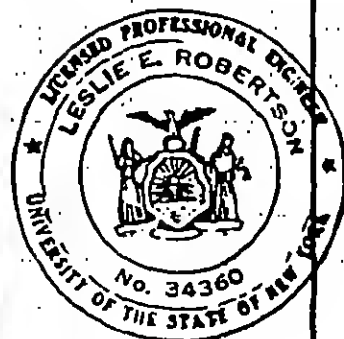
3-1-68

REVISIONS

1-28-69

Typ. Reinf. at Machine SlabsSection N-NNotes:

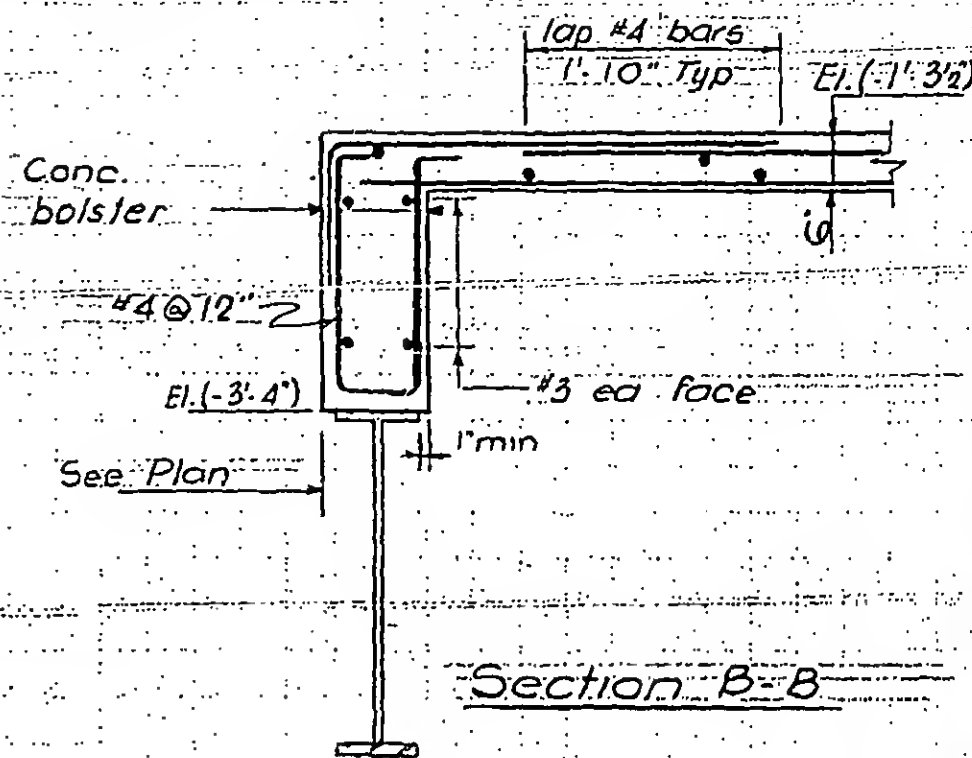
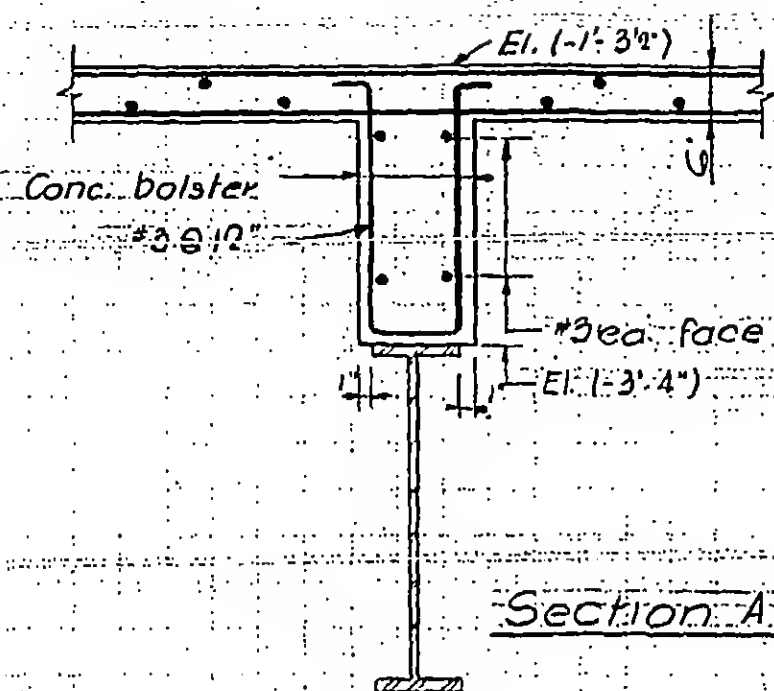
Space around, do not cut,
bars at smoke holes,
steel columns or
other obstructions



B-AB3-G-5

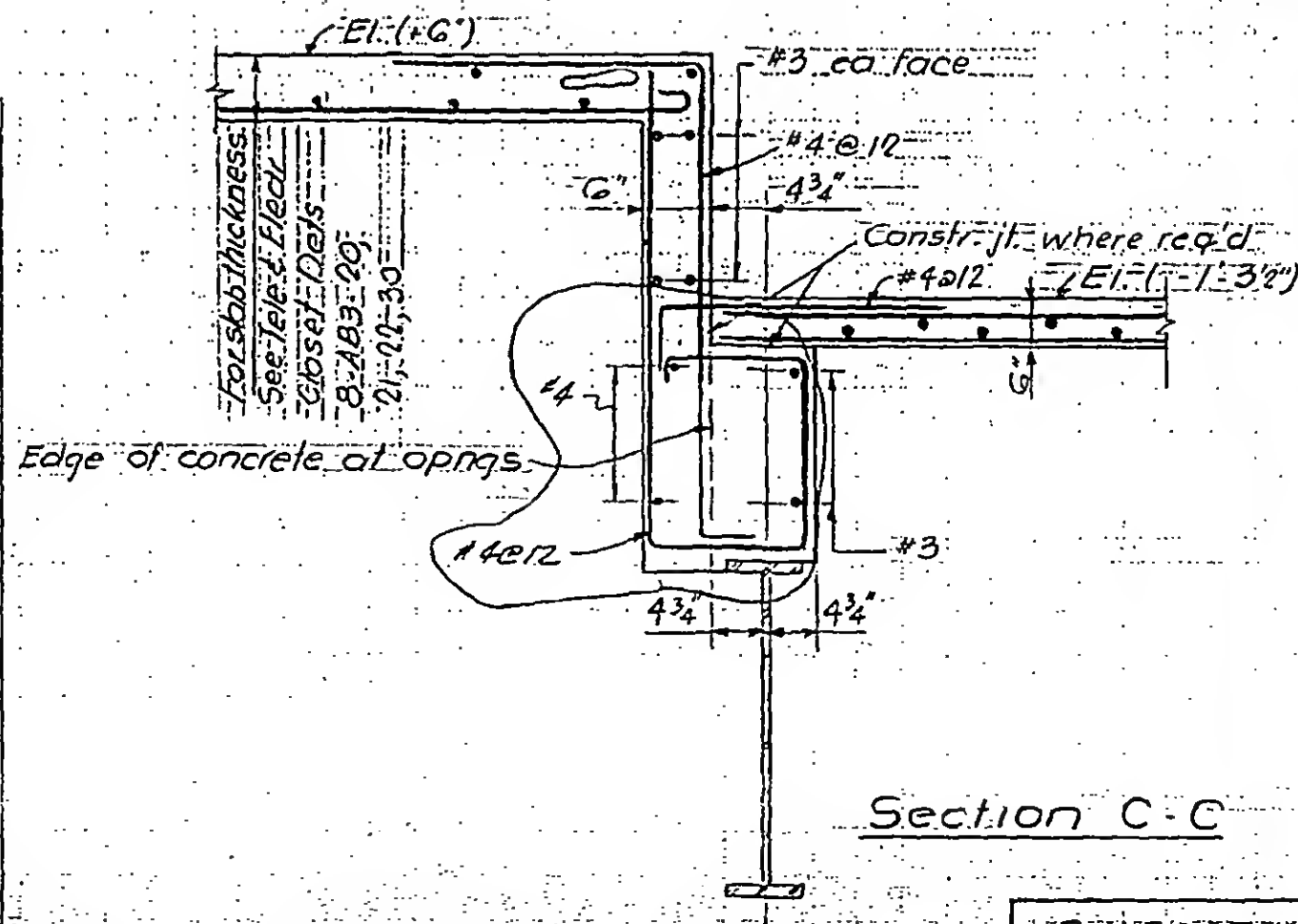
REVISIONS

10-24-69

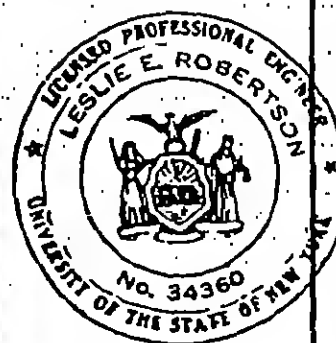


Notes to Sections A-A thru F-F

1. Details of Machine beam pockets in concrete bolsters similar to Section L-L; M-M, 8-AB3-6. Hook longitudinal bars at pockets.
2. Construction joints in concrete bolsters similar to 8-AB1-4, Det. B.
3. For reinforcing of slab at el. (-1'3 1/2") see Section G-G. Horiz legs of bent bars or dowels embedded in this slab shall be parallel or normal to mach. beams.



8-AB3-7.1



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PROJECT THE WORLD TRADE CENTER

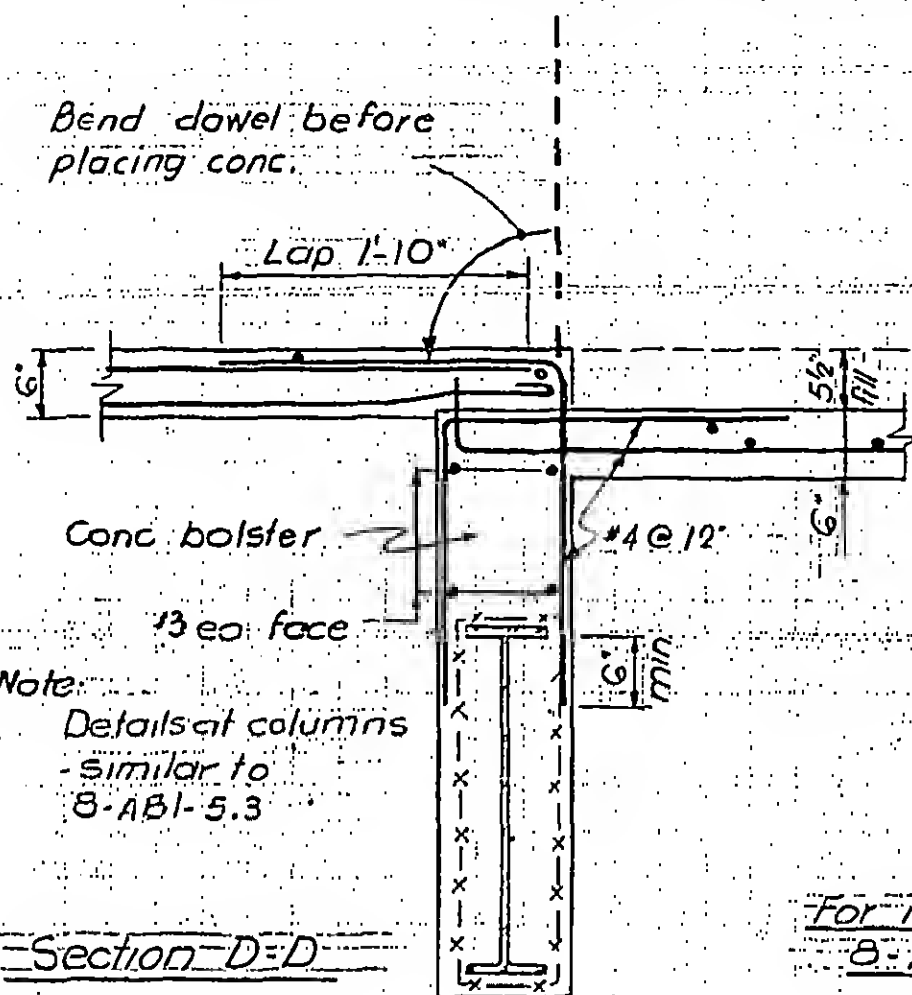
TITLE SECTIONS AT SHUTTLE ELEVATOR MACH. ROOMS

DATE 3-1-68

REVISIONS

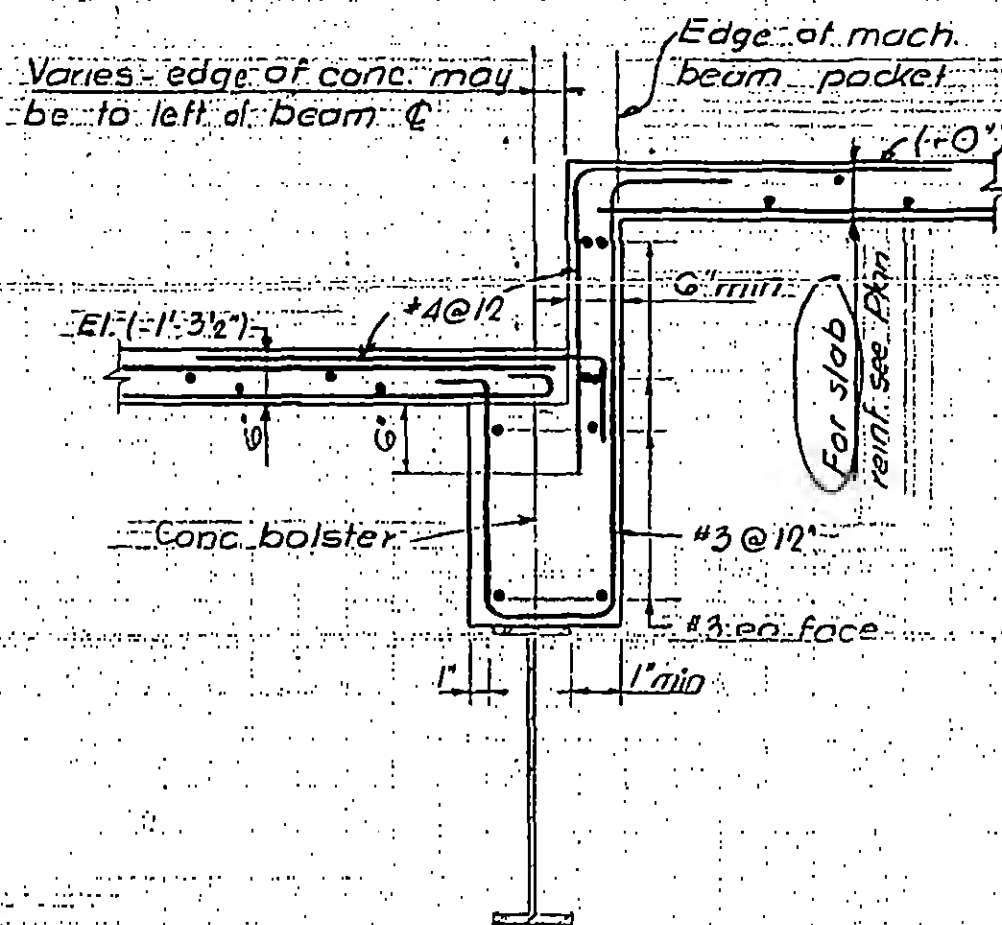
1-28-69

Bend dowel before placing conc.



Note: Details at columns similar to 8-AB1-5.3

Section D-D



Varies - edge of conc. may be to left of beam &

Edge of mach. beam pocket

El. (-1'-3 1/2")

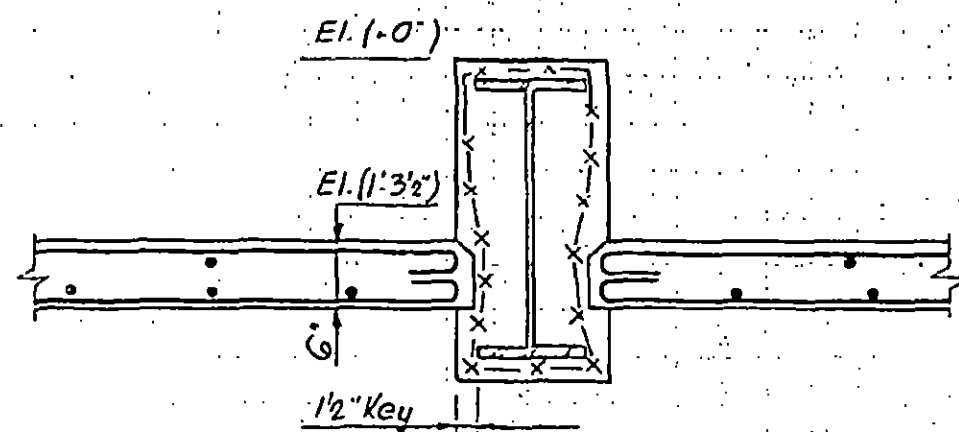
Conc. bolster

6" min.

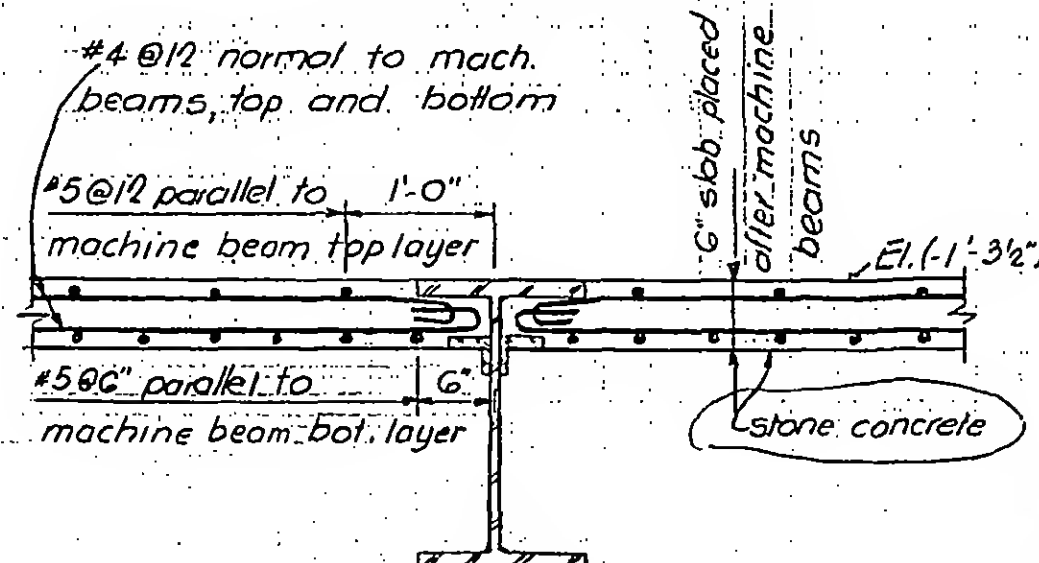
#3 @ 12"

#3 on face

Section E-E



Section F-F



#4 @ 12 normal to mach. beams, top and bottom

#5 @ 12 parallel to 1'-0" machine beam top layer

#5 @ 6" parallel to 6" machine beam bot. layer

6" slab placed after machine beams

stone concrete

TYPICAL REINF. AT MACHINE BEAM

Section G-G

8-AB3-7.2



SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

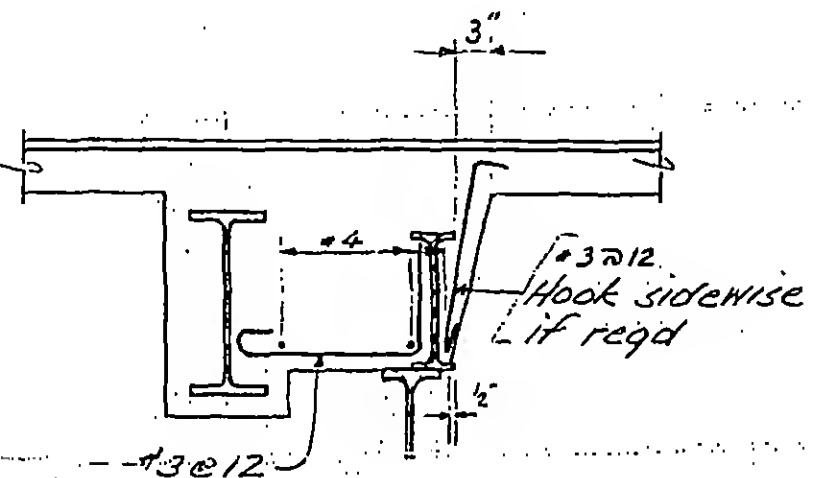
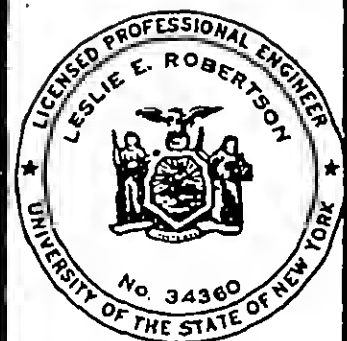
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT SHUTTLE ELEV MACHINE ROOMS

DATE 4-23-69

REVISIONS

Section H-H

DESIGNED

A.L.A.

DRAWN

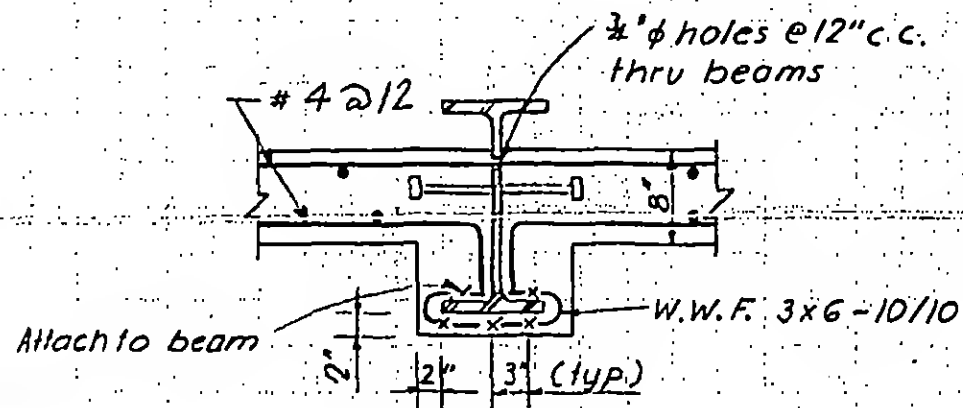
J. Adams

REVIEWED

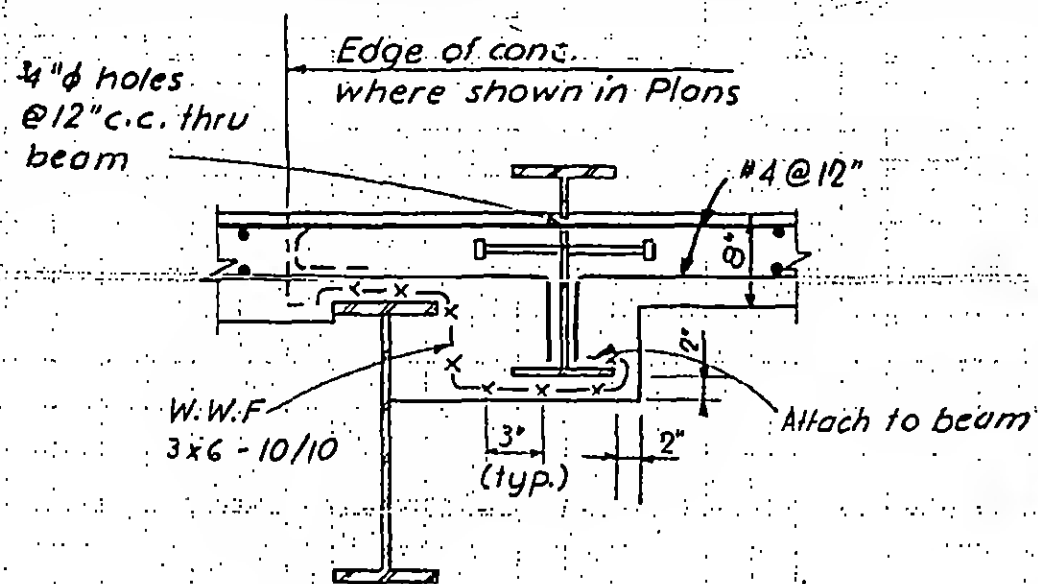
B-AB3-7.3

REVISIONS

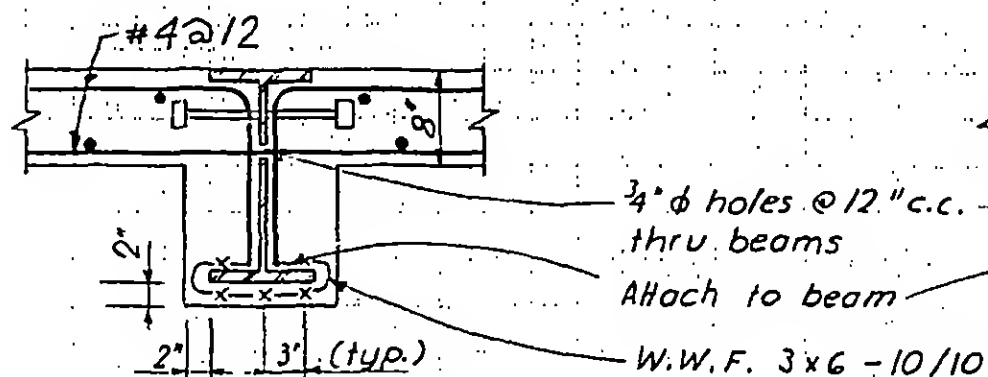
8-20-68



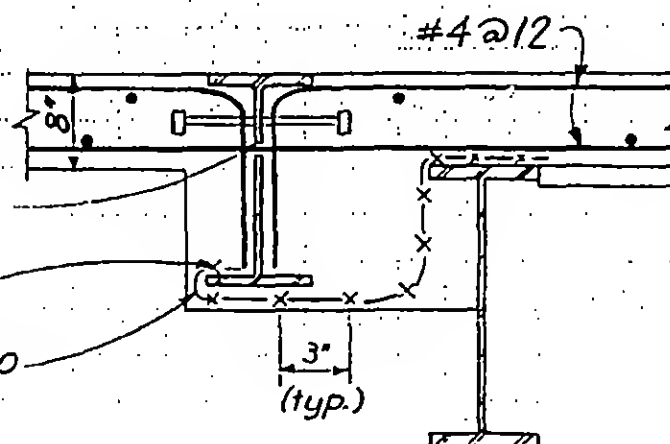
Section A-A



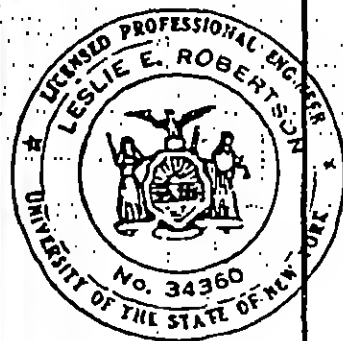
Section B-B



Section C-C



Section D-D



SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

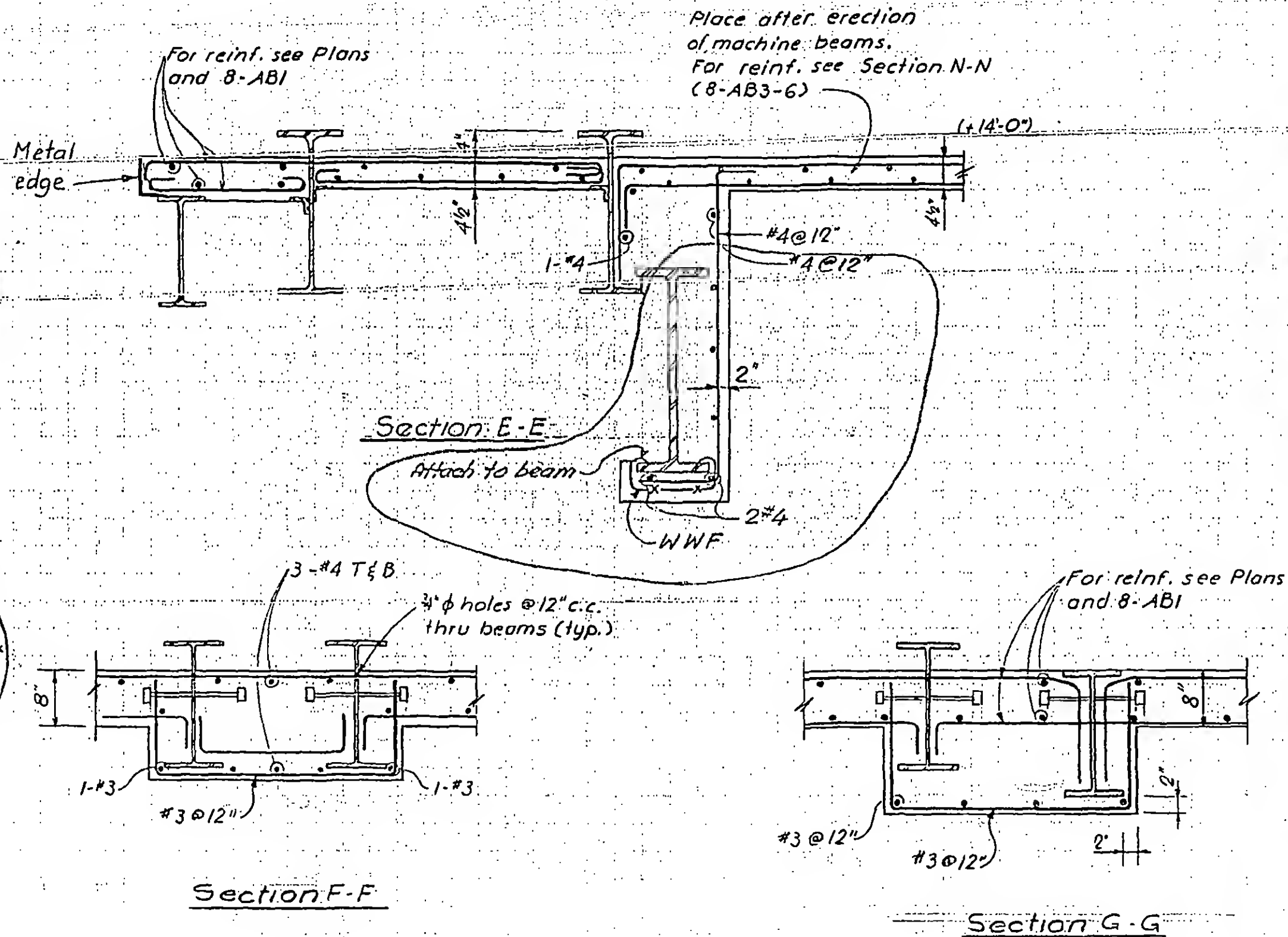
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE ELEVATOR PIT SECTIONS & DETAILS

DATE 3-1-68

REVISIONS

8-20-68
10-24-69

8-AB3-8.2

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

PROJECT

THE WORLD TRADE CENTER

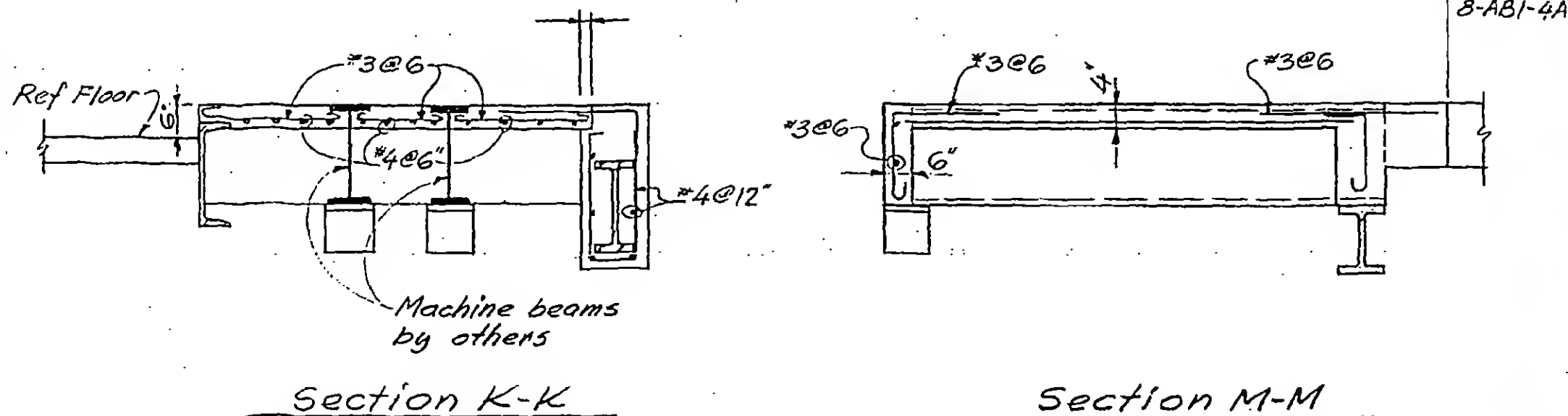
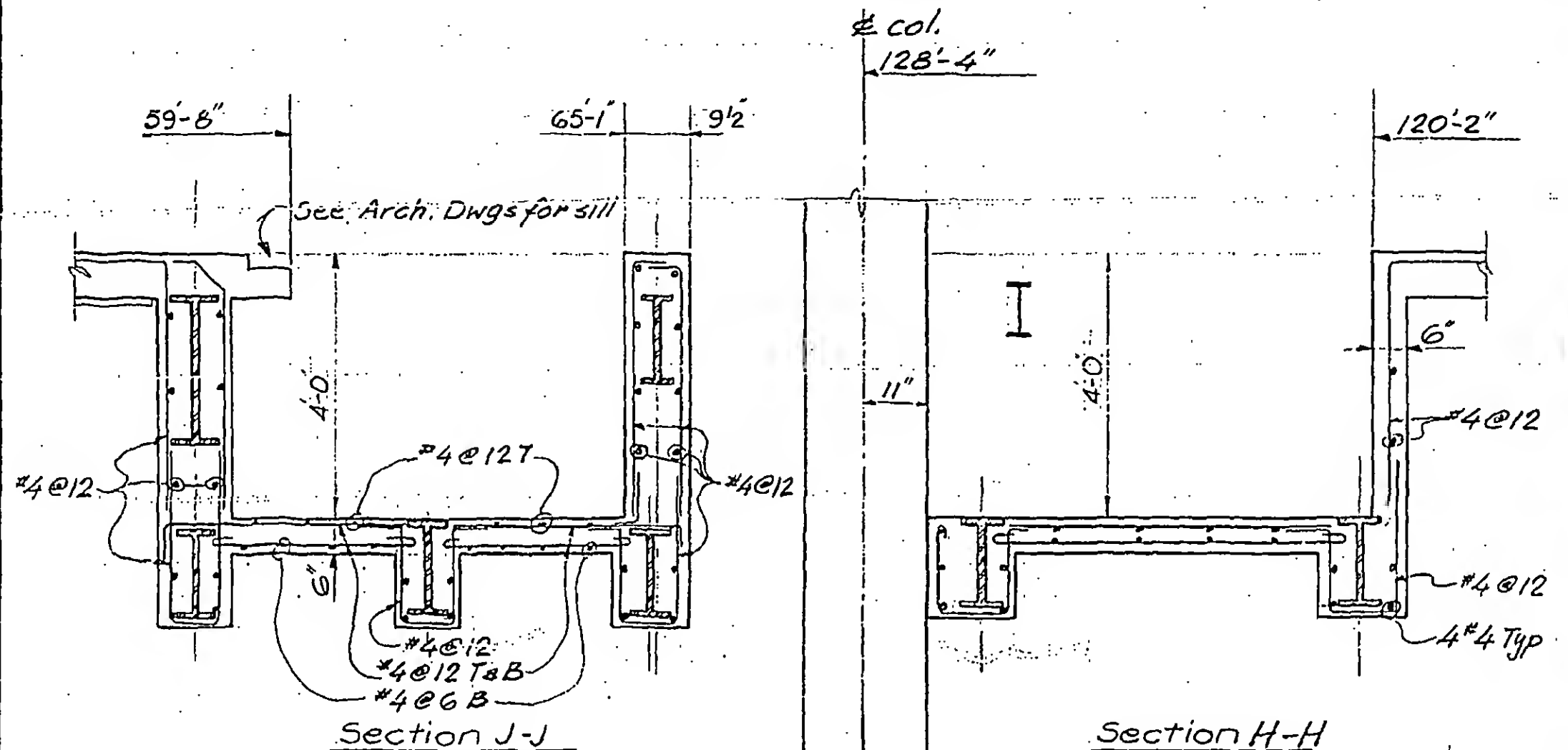
TITLE

ELEVATOR PIT SECTIONS & DETAILS

DATE

10-24-69

REVISIONS



DESIGNED

DRAWN

D. HUGGINS

REVIEWED

8-AB3-8.3

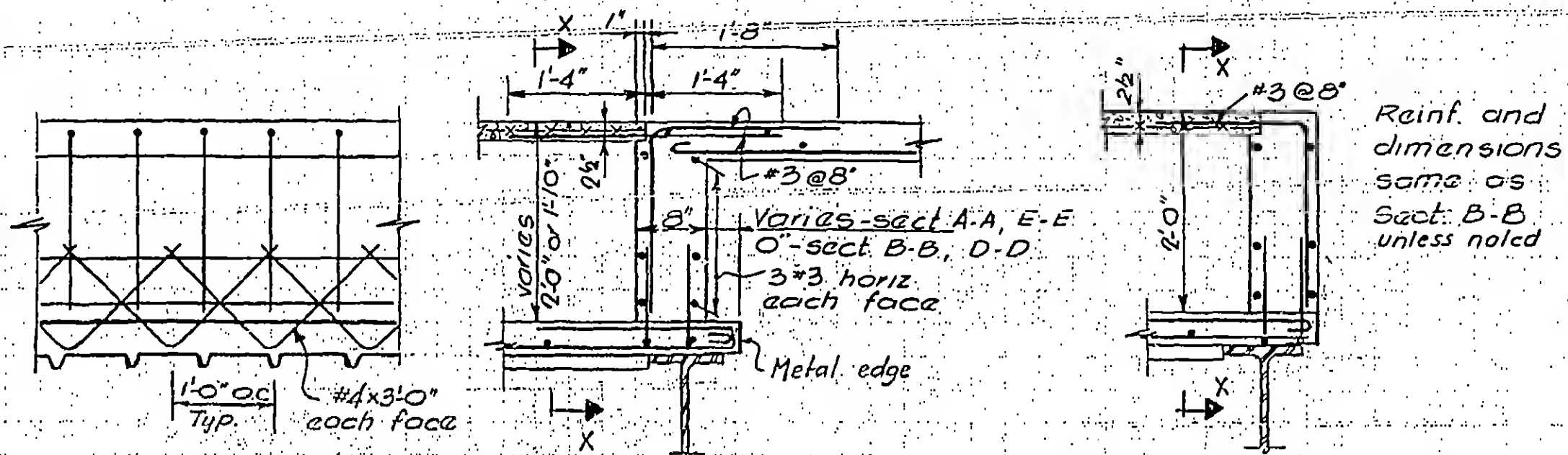
SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER TITLE SECTIONS AT FLOOR 107

DATE 3-1-68

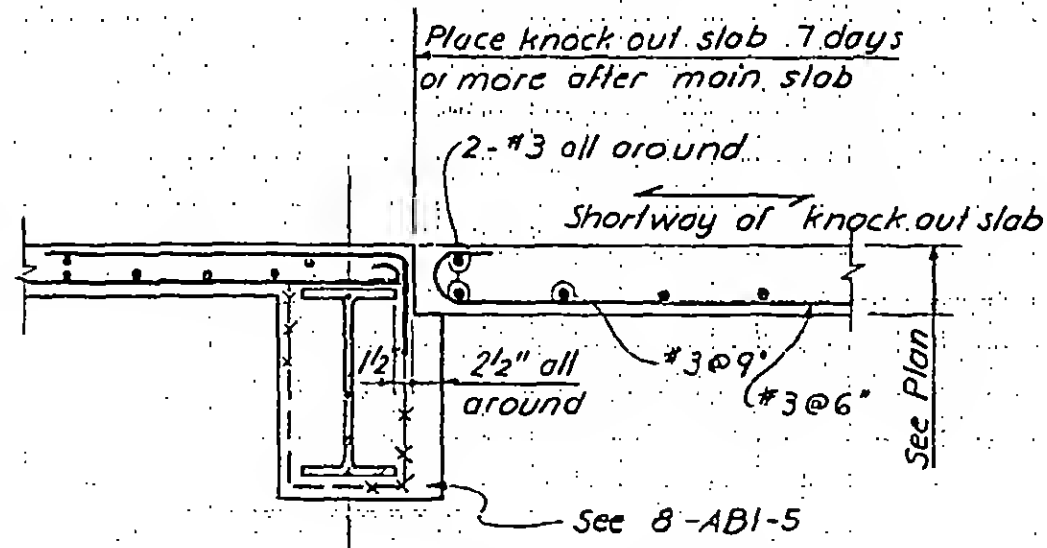
REVISIONS



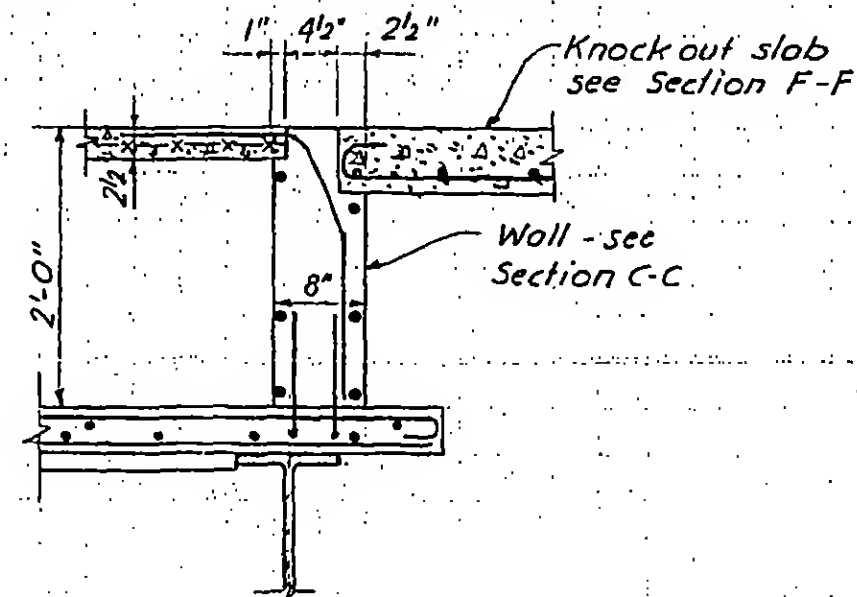
Section X-X

Section A-A, B-B, D-D, E-E

Section C-C



Section F-F



Section 6-6



B-AB3-9

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

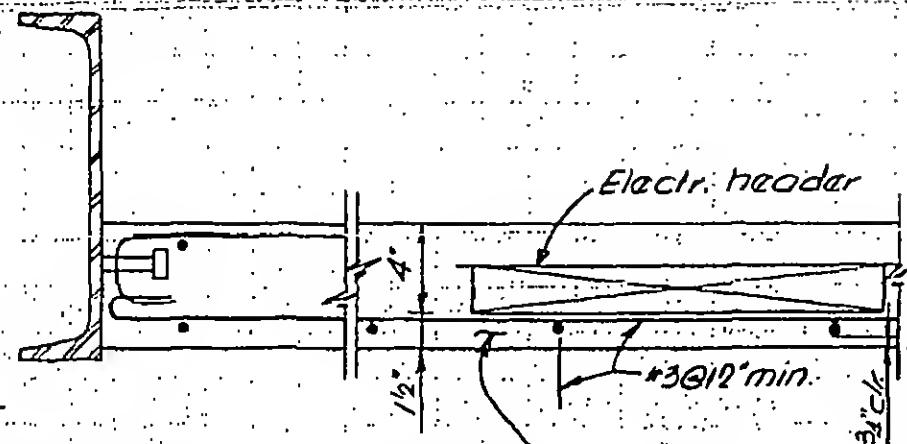
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE DETAILS OF 5½' SLAB

DATE 3-1-68

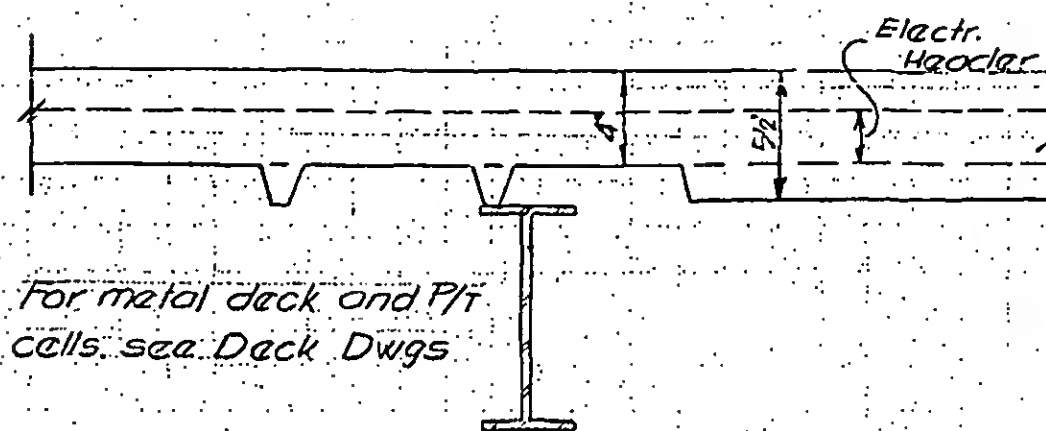
REVISIONS



Place and thoroughly vibrate easily workable concrete under header; prevent pockets of air.

Section C-C

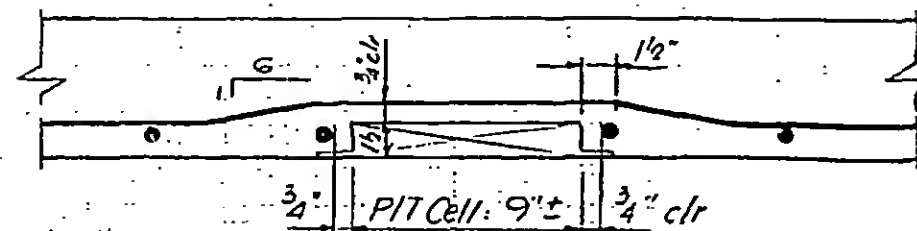
For reinf. not shown see Plan and Typ. Details.



For metal deck and P/I cells see Deck Dwg's

Section B-B

Reinf. not shown



Note:

Total number of bars shall be determined as if P/I Cells did not exist; place bars clear of cells as shown.

Place all Top and Bot bars parallel with P/I Cell outside this strip

Section A-A



8-AB3-10.1

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

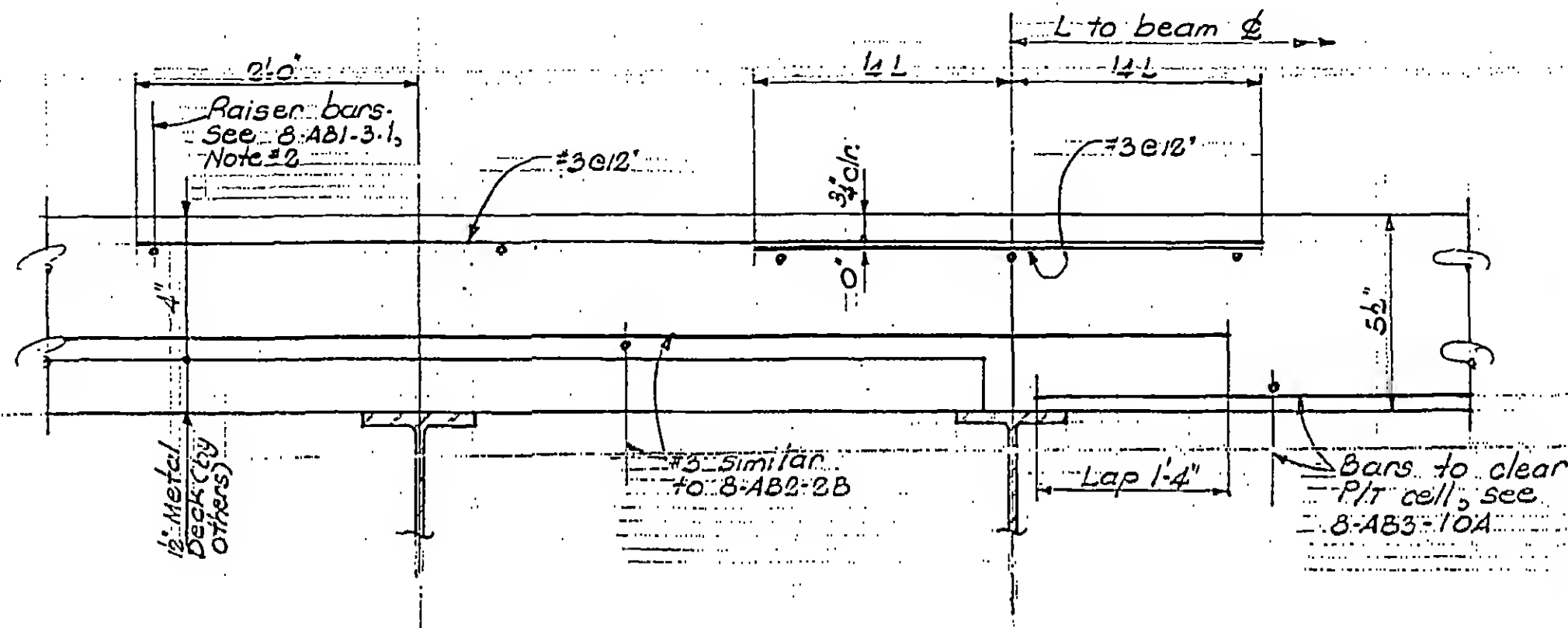
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

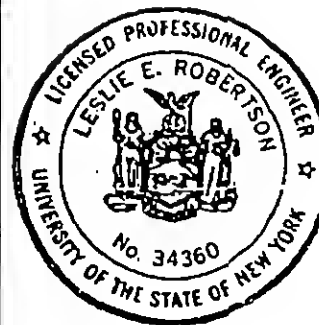
TITLE DETAILS OF 5½" SLAB

DATE 9-5-68

REVISIONS



Section D-D



DESIGNED

DRAWN

REVIEWED

8-AB3-10.2

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

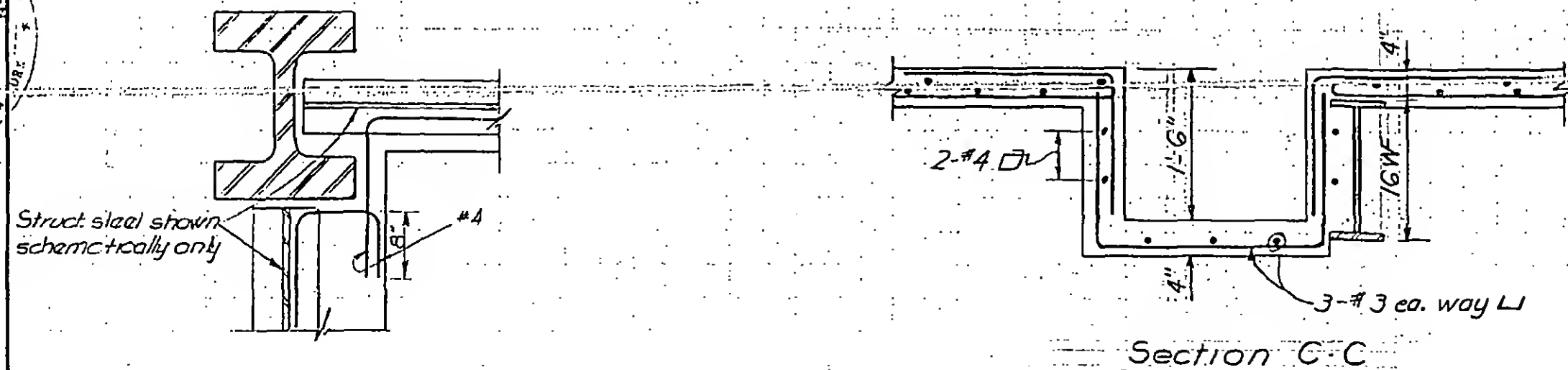
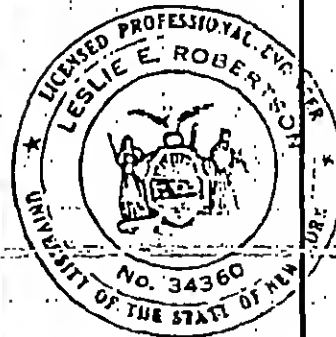
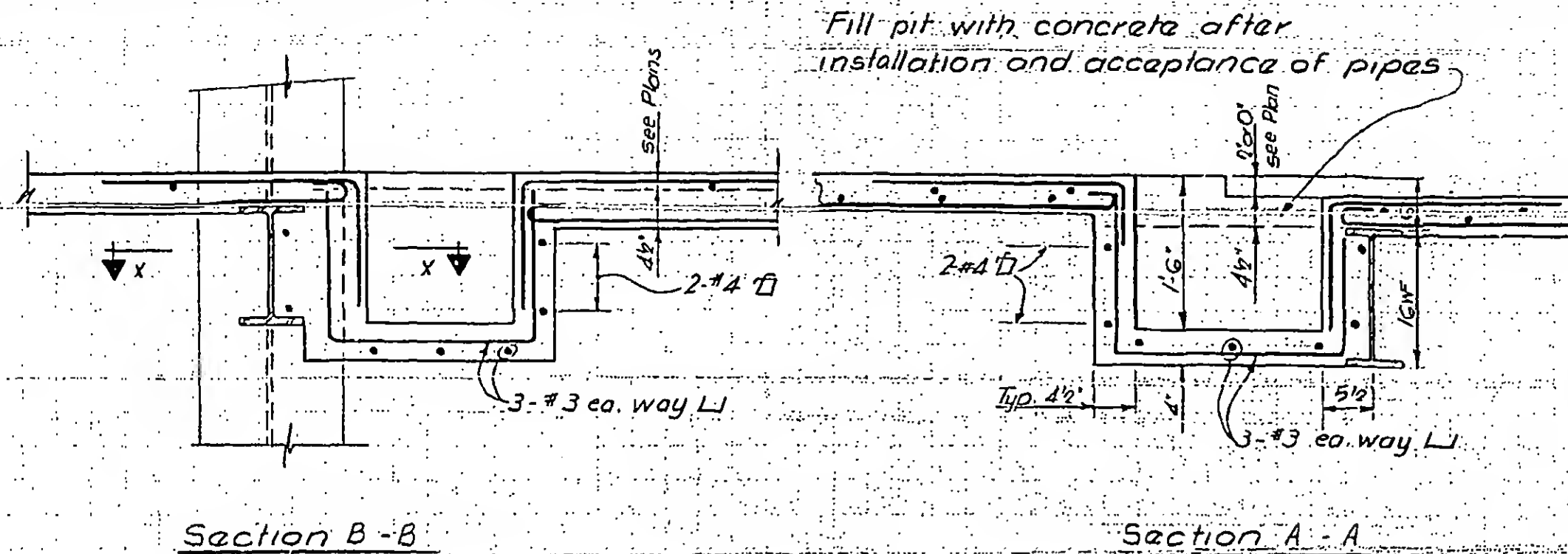
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE SUMP PITS

DATE 3-1-68

REVISIONS

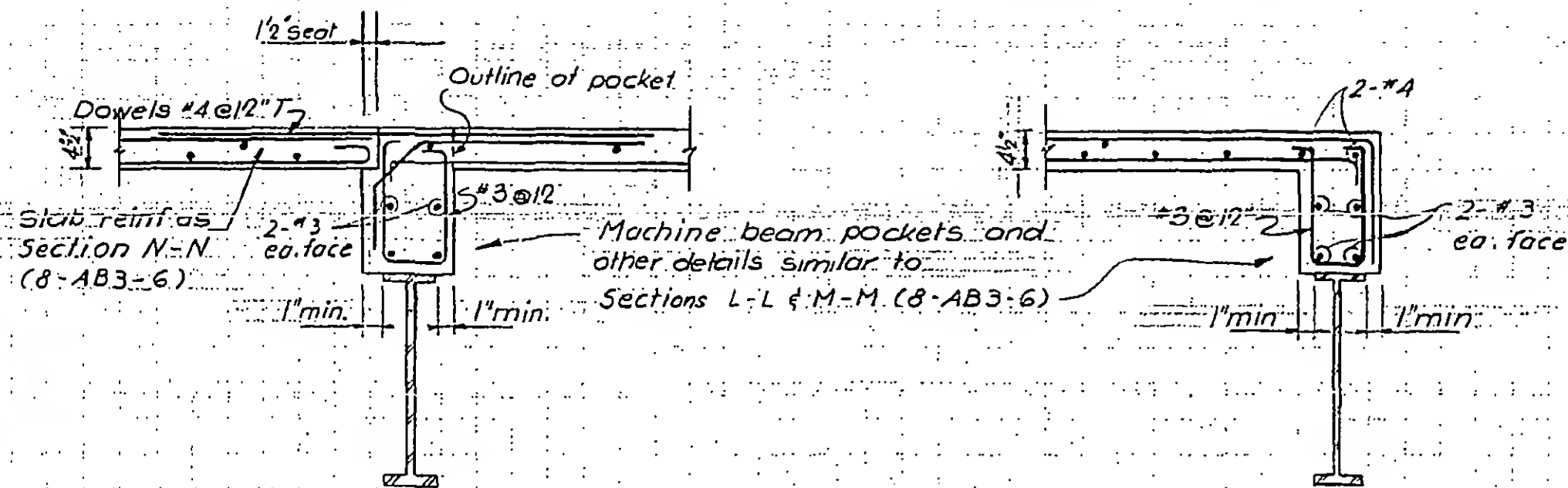


Detail of #4 tie where steel

S-AB3-11

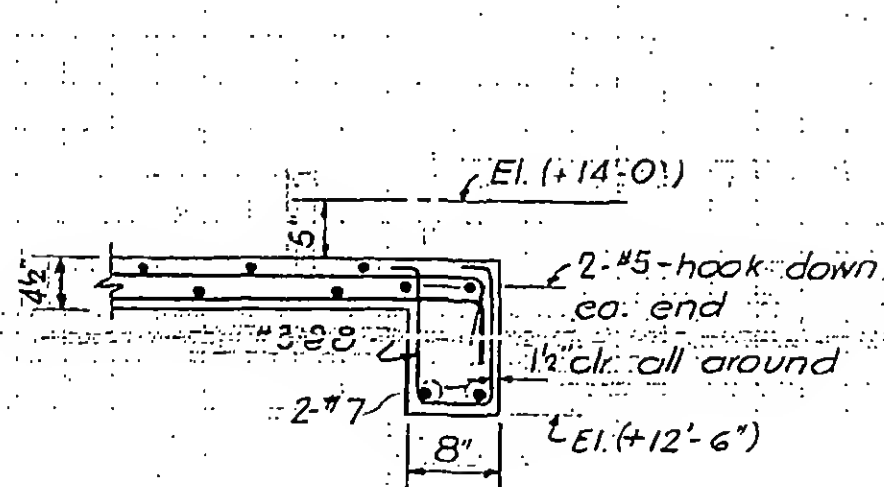
REVISIONS

12-1-70

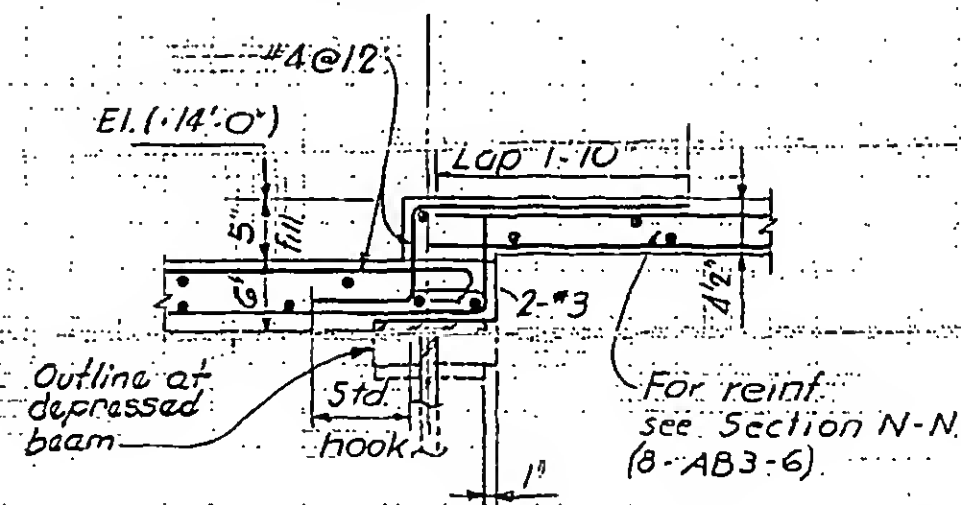


Section A-A

Section B-B



Section C-C



Section D-D



SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

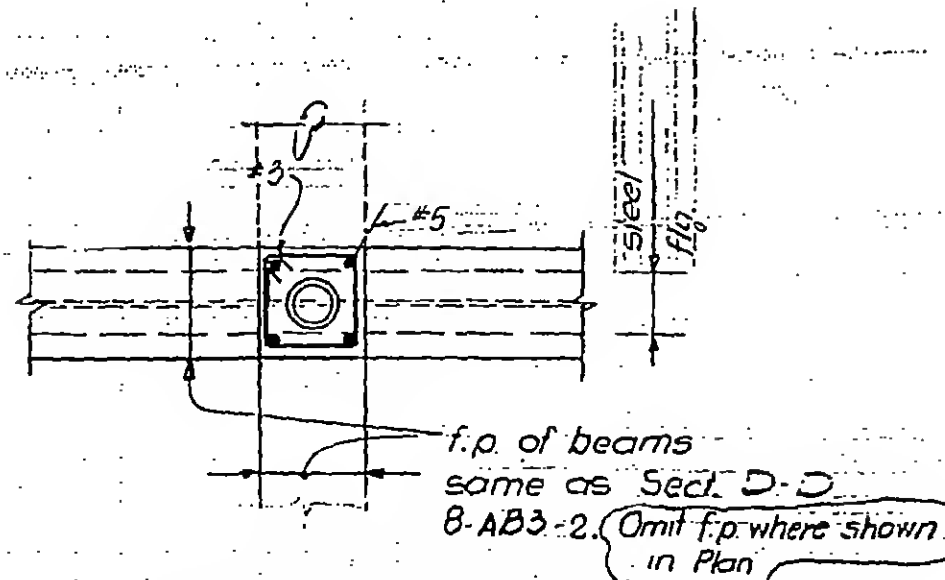
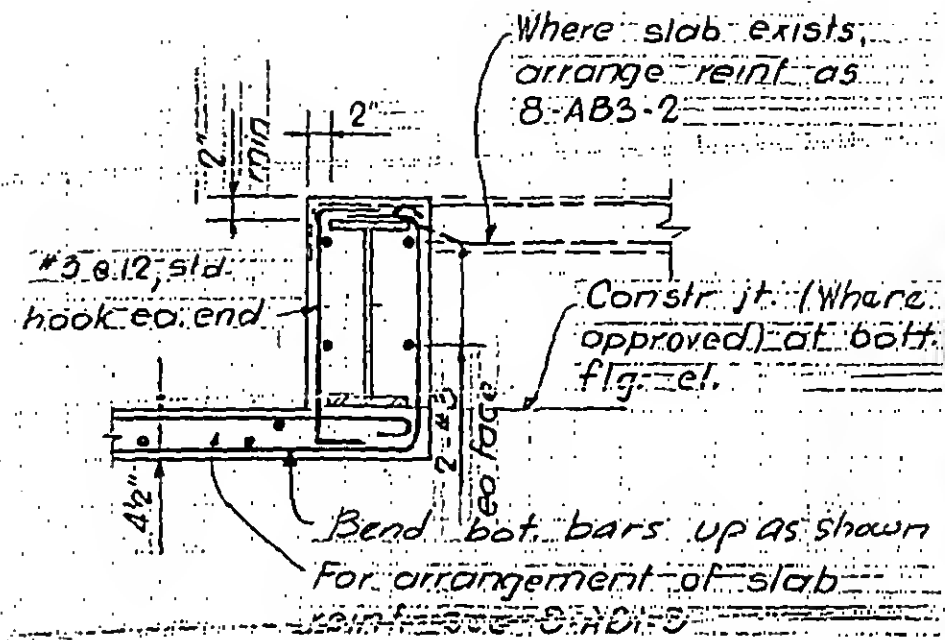
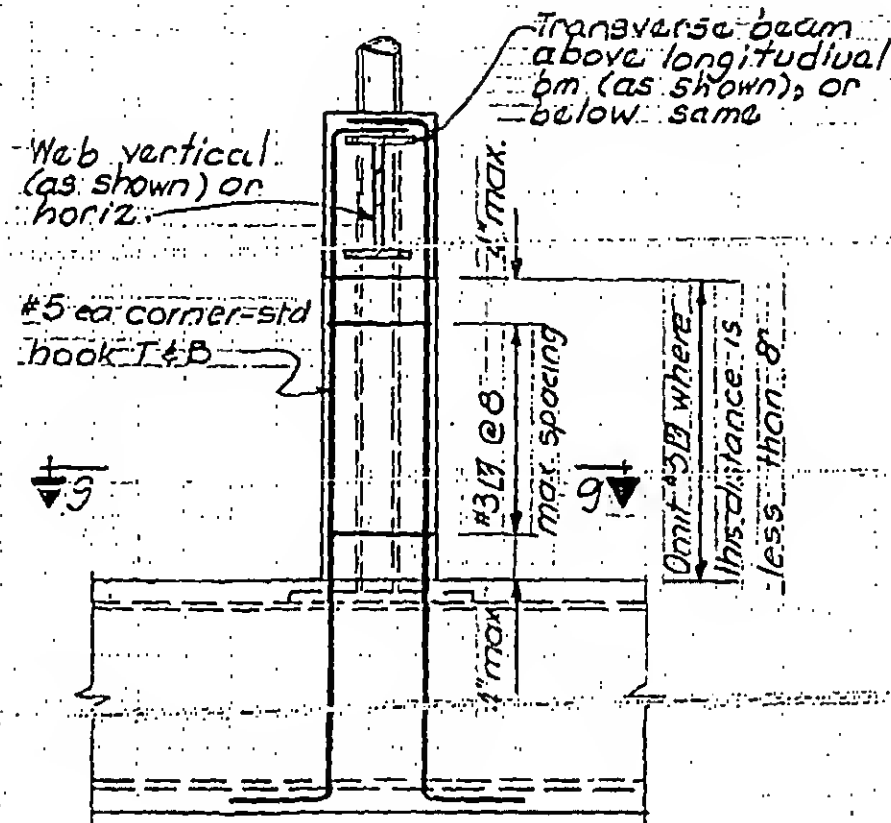
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOORS 42, 76, 109

DATE 3-1-68

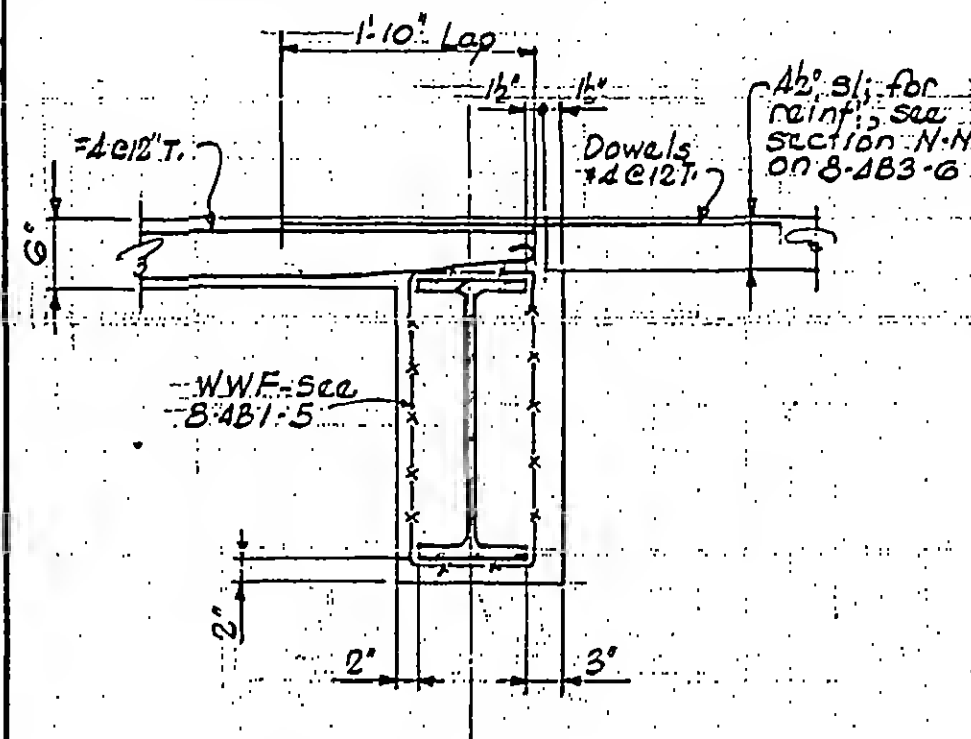
REVISIONS

1-28-69

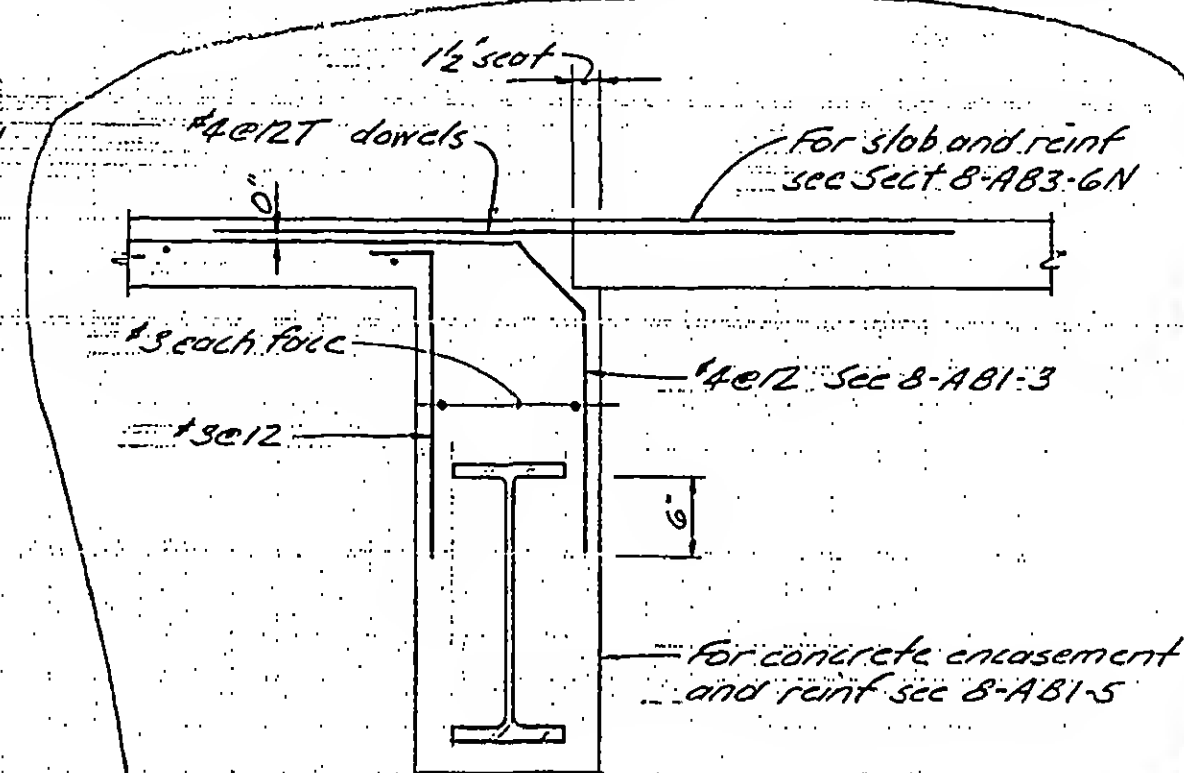


REVISIONS

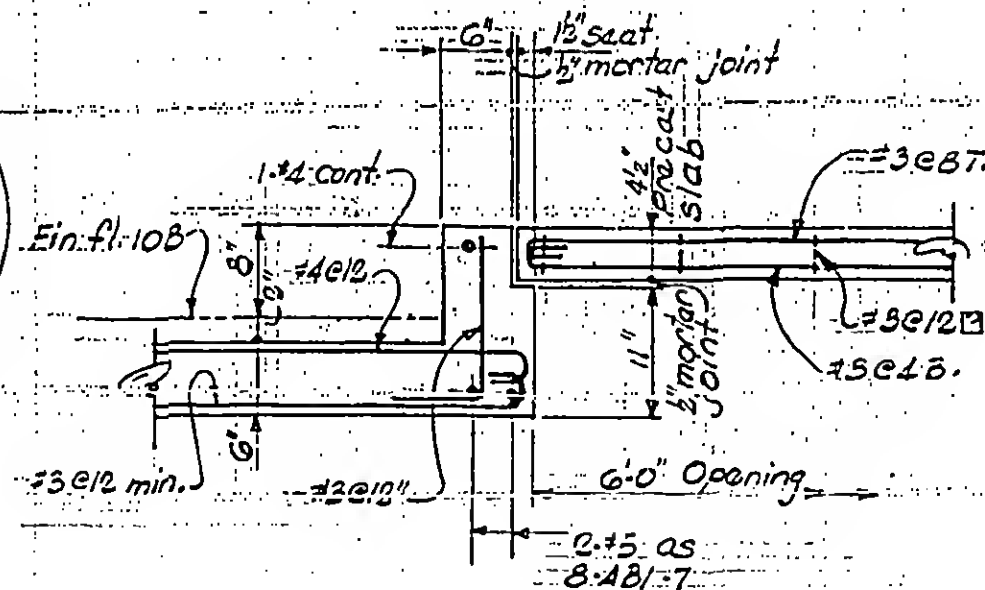
5/31/68
10-24-69



Section H-H

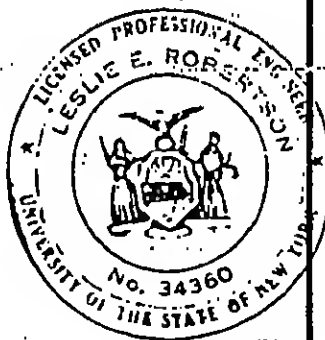


Section K-K



Section J-J

Required - 6 slabs 252" wide; lay with
1/2" mortar joints
Provide 2 lifting eyes in each precast slab
Eyes shall not project above finish slab



8-AB3-12.3

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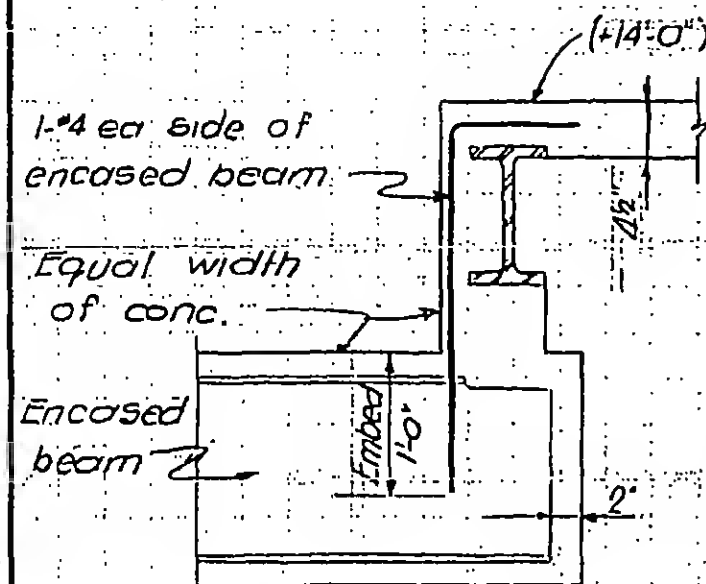
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

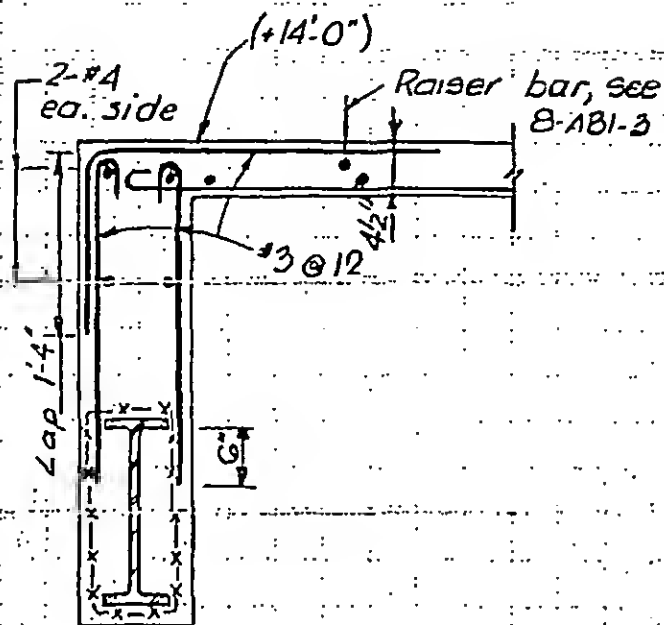
TITLE SECTIONS AT FLOOR 8.

DATE 3-1-68

REVISIONS



Section A-A

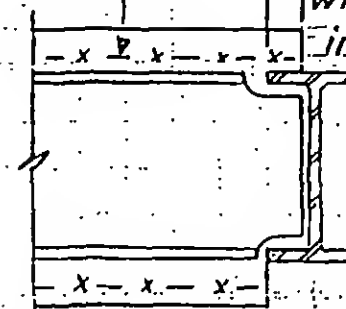


Section B-B

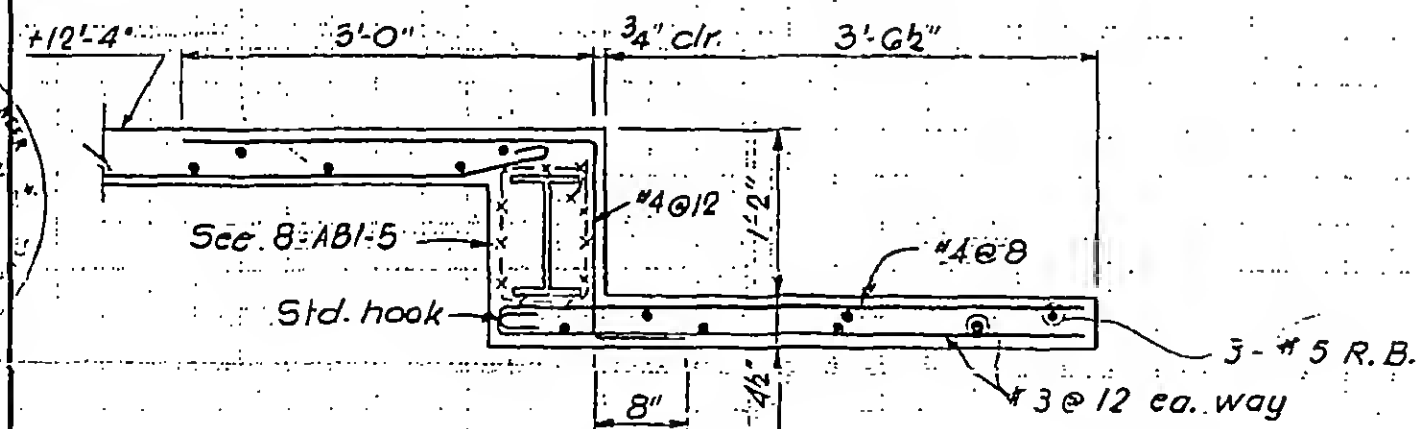
Concrete f.p. and W.W.F., see 8-AB1-5

Edge of concrete unless otherwise shown

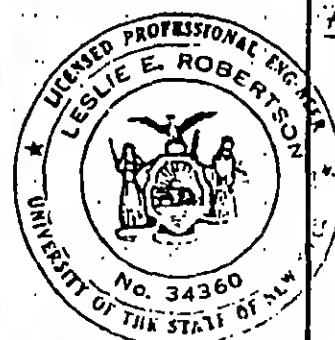
Edge of conc. where indicated in Plans



Section C-C



Section D-D



8-AB3-13

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

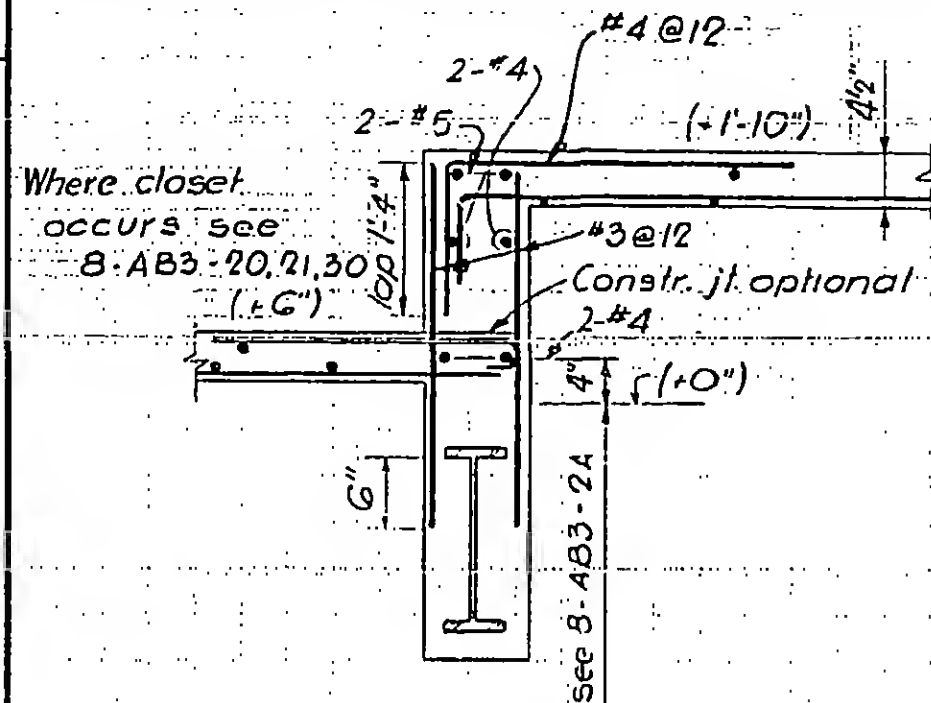
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT SECONDARY LEVELS OF SHUTTLE ELEVRS

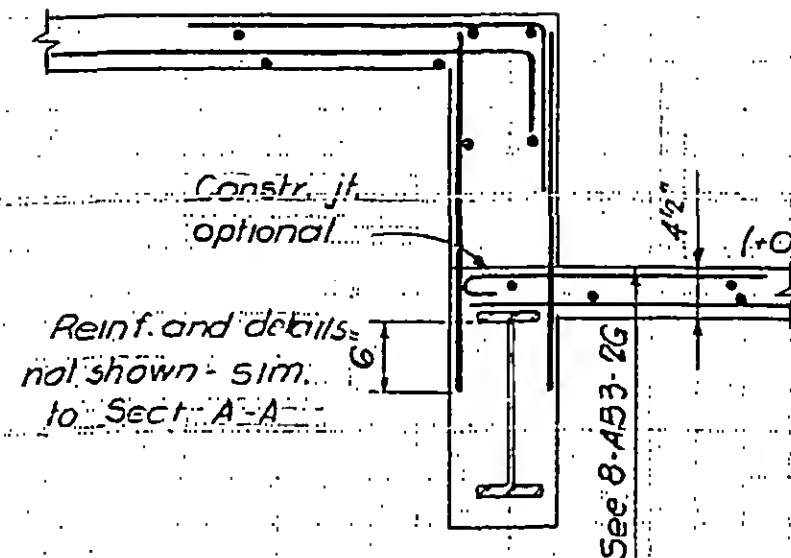
DATE 3-1-68

REVISIONS

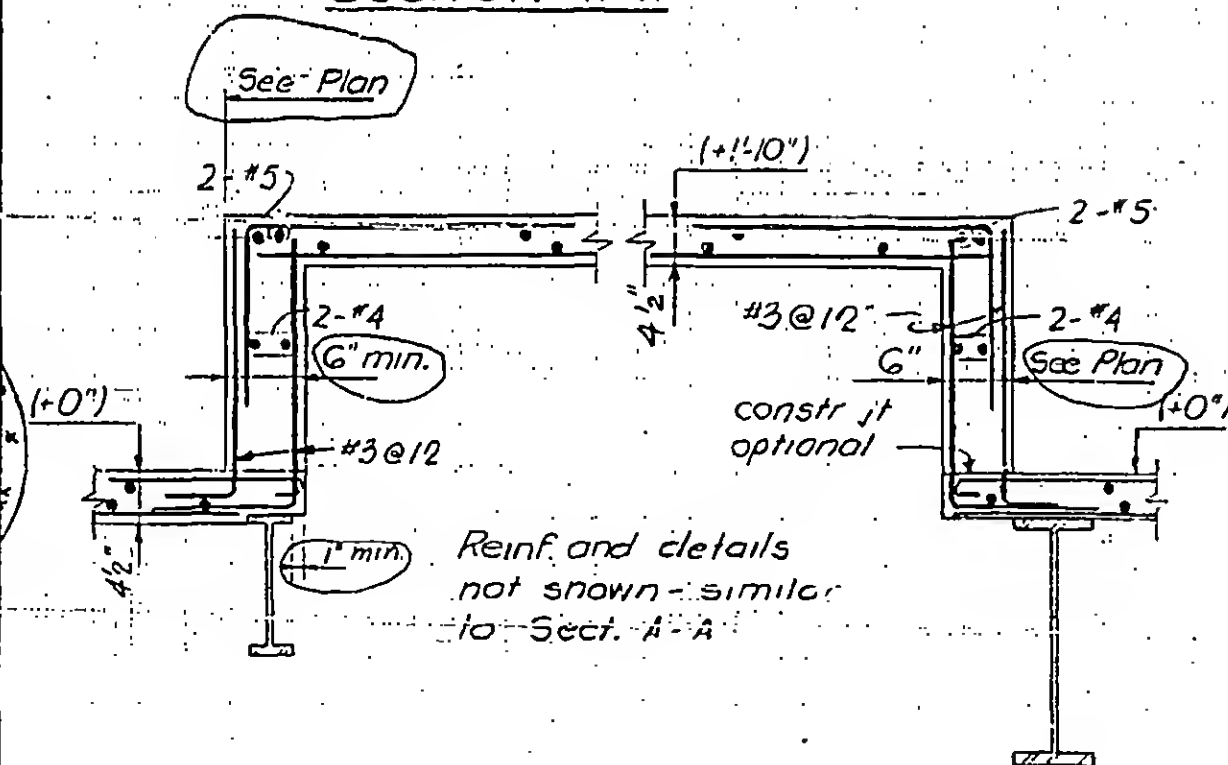
1-28-69



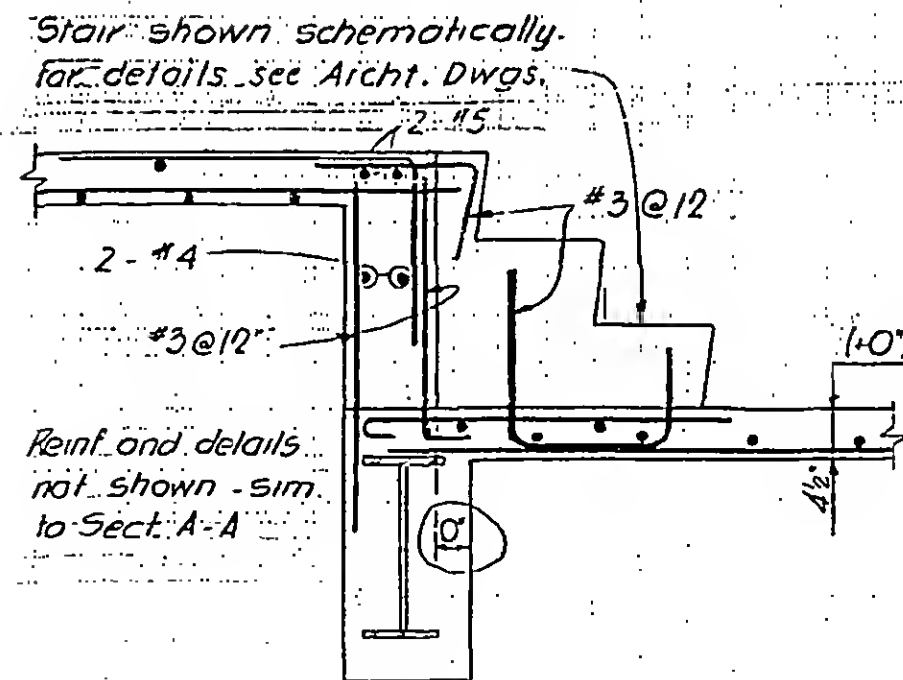
Section A-A



Section B-B



Section C-C



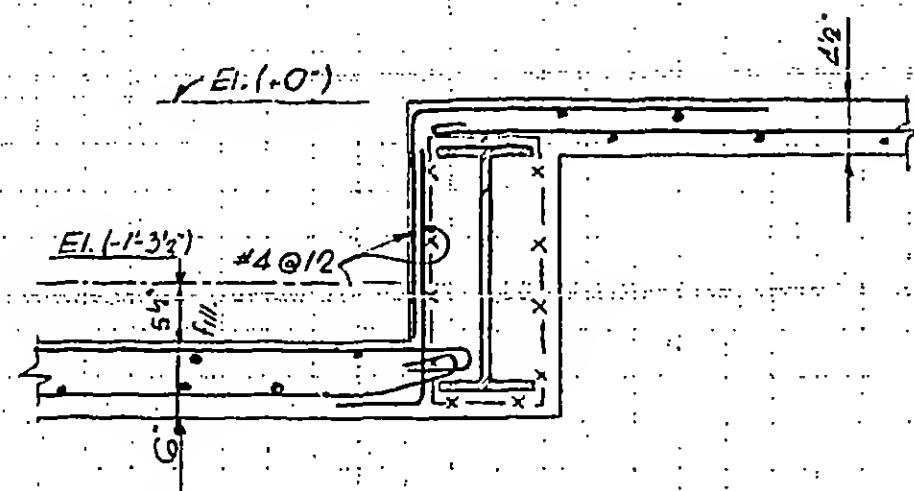
Section D-D

Section E-E



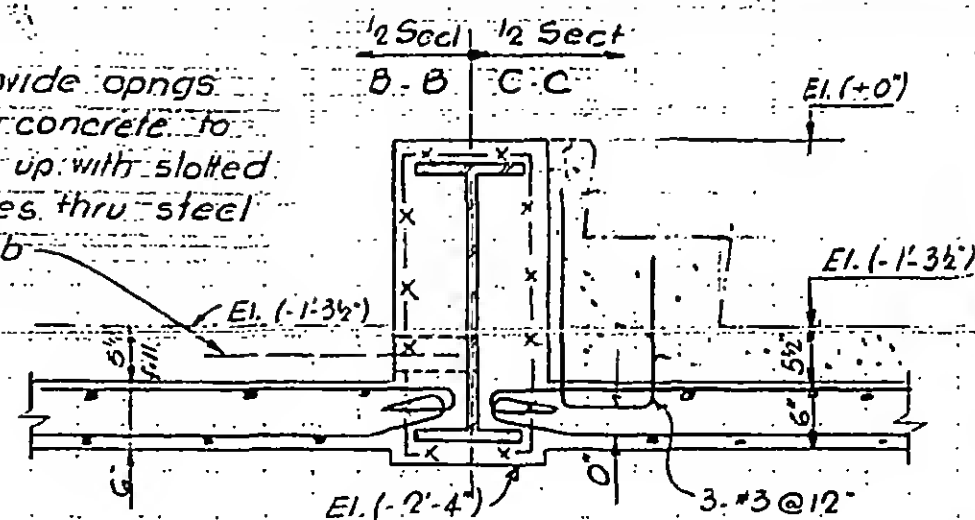
8-AB3-14

REVISIONS



Section A-A

Provide opngs
thru concrete to
line up with slotted
holes thru steel
web

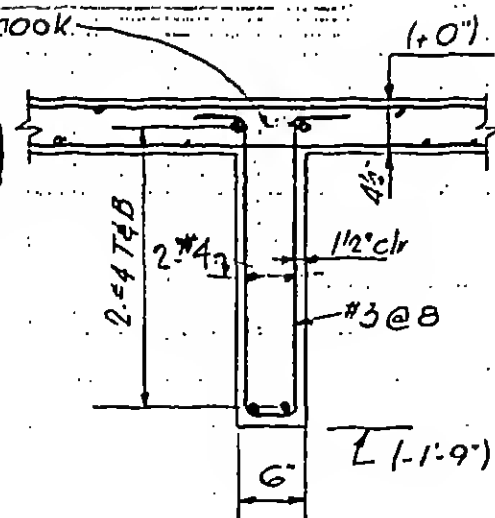


Section B-B and C-C

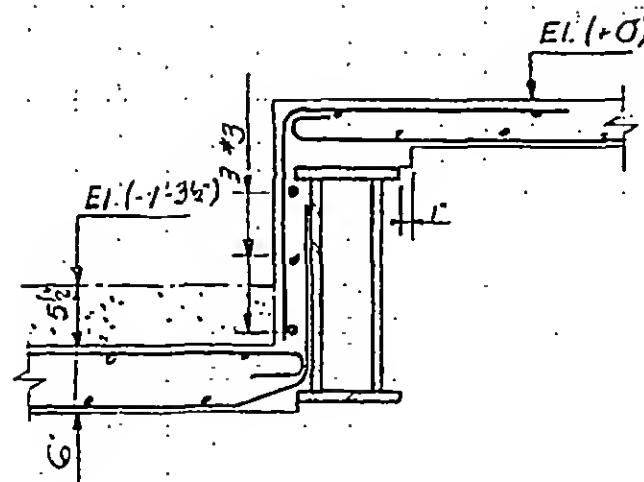
Note to Sects. C-C and G-G

Stairs are shown schematically.
For details see Archt. Dwg.

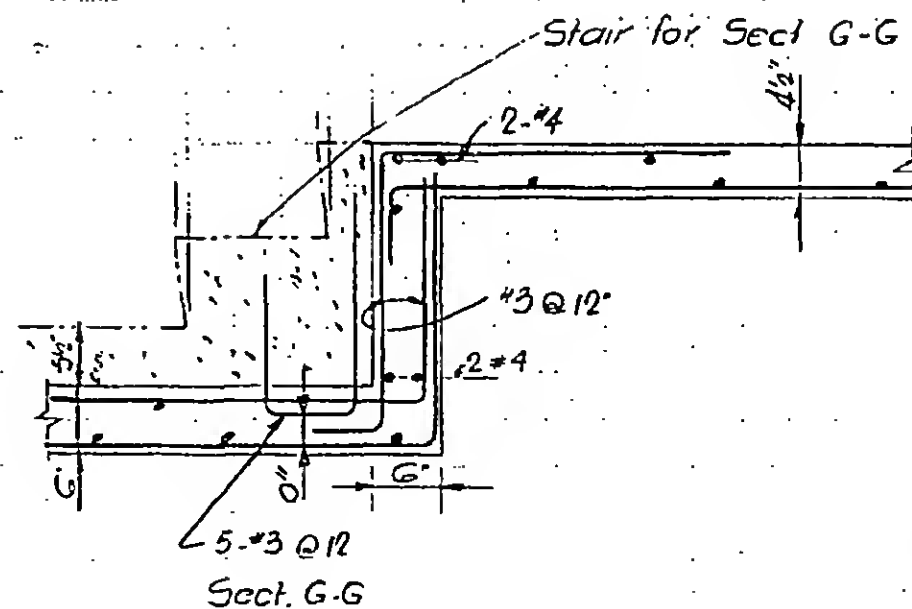
Extend top bars into
adjacent slab where
feasible otherwise
hook



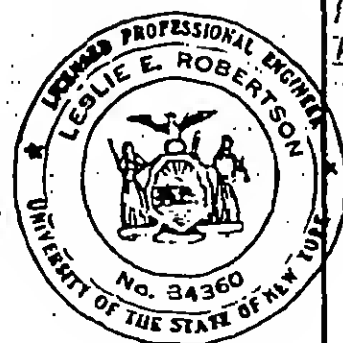
Section D-D



Section E-E



Section F-F and G-G



SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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PROJECT THE WORLD TRADE CENTER

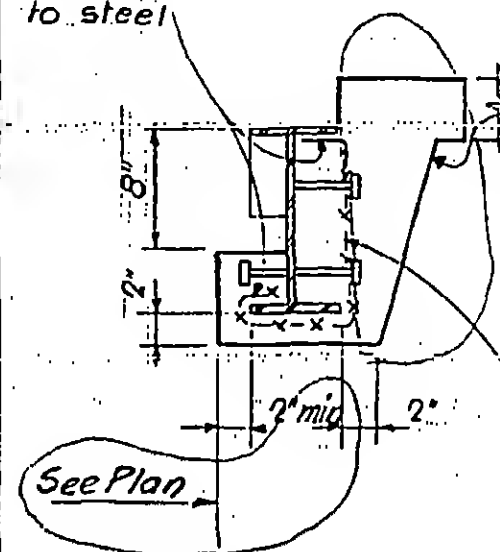
TITLE SECTIONS AT ESCALATOR PITS

DATE 3-1-68

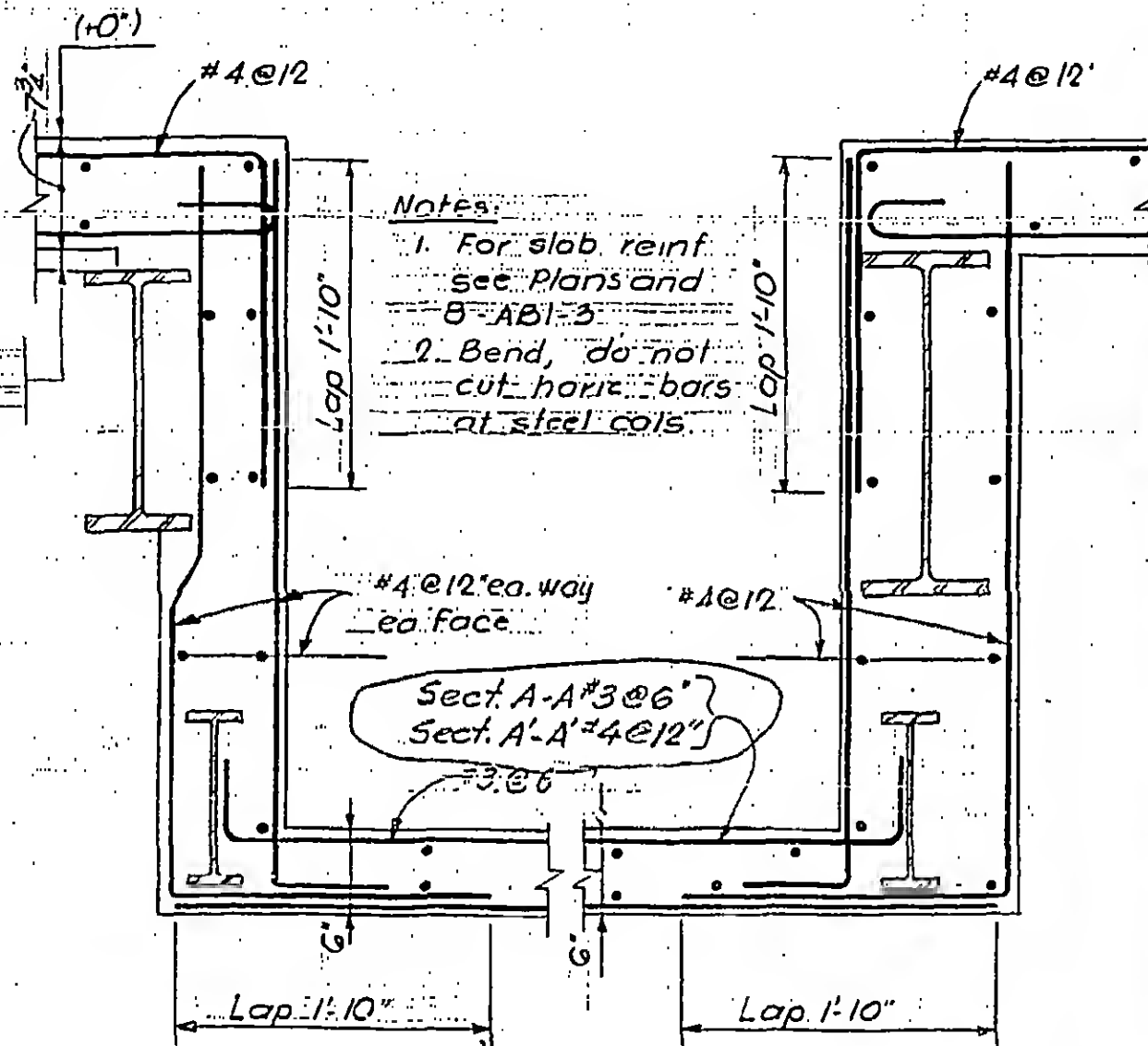
REVISIONS

1-28-69

10-24-69

Weld WWF
to steel

Section H-H

Slope concrete face
where required for
setting access doors.Steel deck
by othersWWF same as
B-ABI-5

Notes:

1. For slab reinf. see Plans and B-ABI-3
2. Bend, do not cut horiz. bars at steel cols.

Sect. A-A #3 @ 6"
Sect. A'-A' #4 @ 12"

Section B-B

Section A-A

Section A'-A' as noted

Note: For Plans see SCA-143

For Slab bet. access doors -
see SCA-143

B-AB3-16.1

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

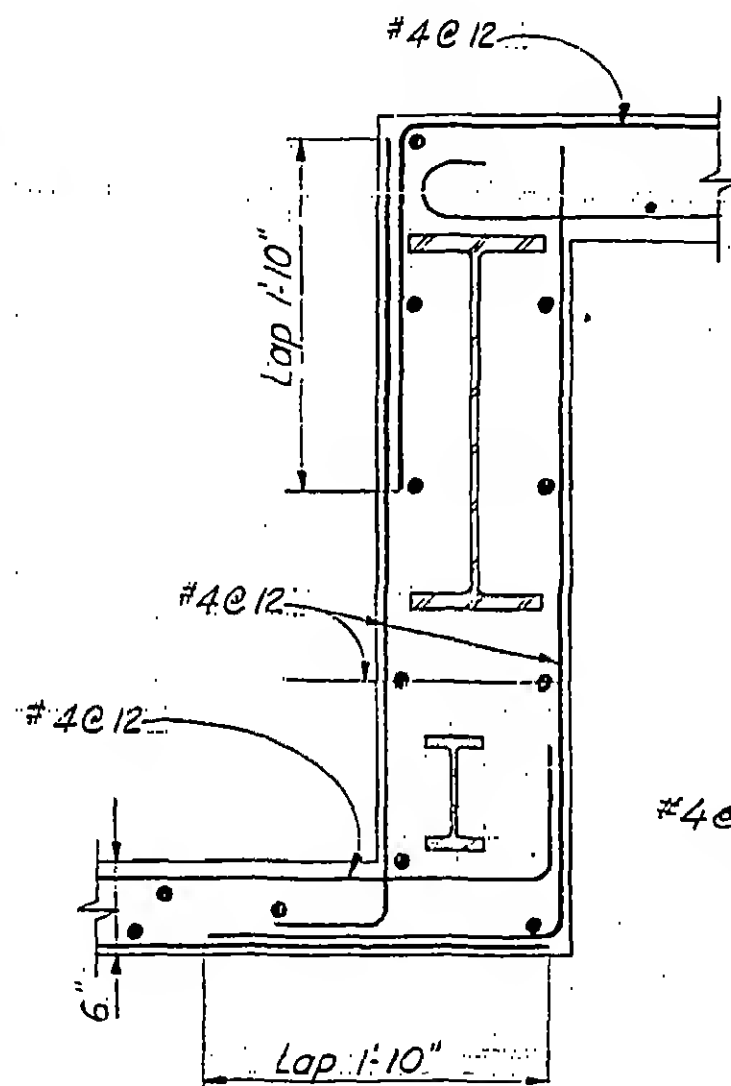
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT ESCALATOR PITS

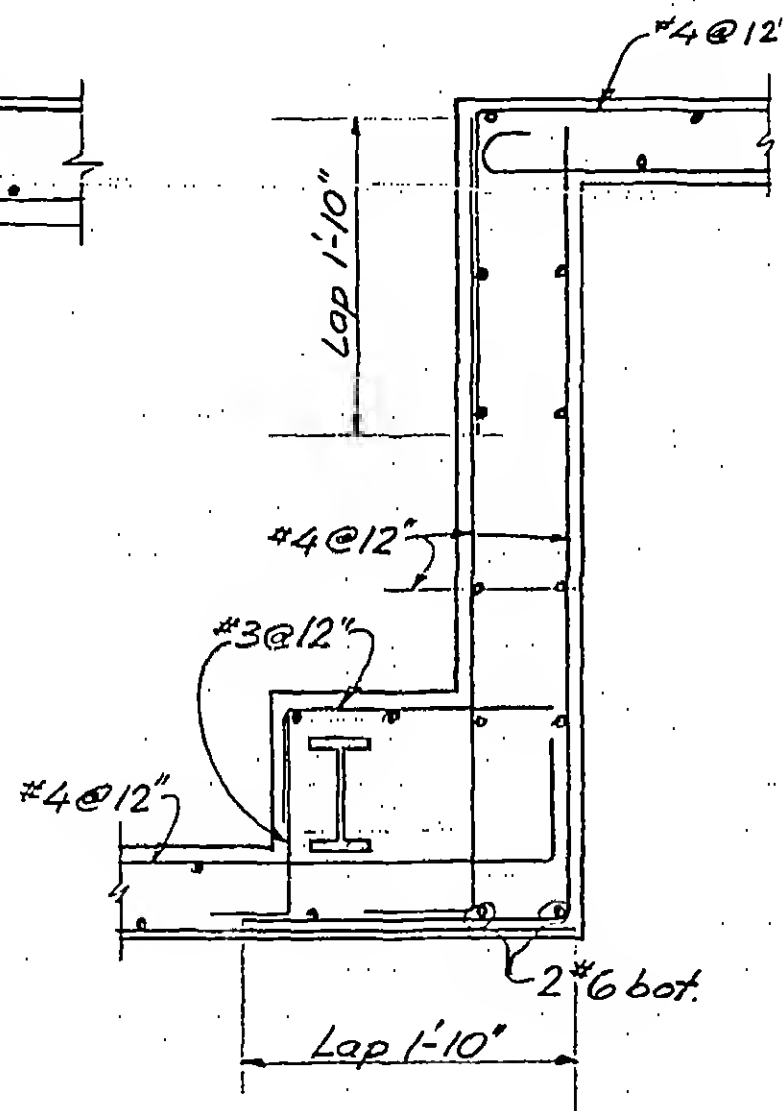
DATE 3-1-68

REVISIONS

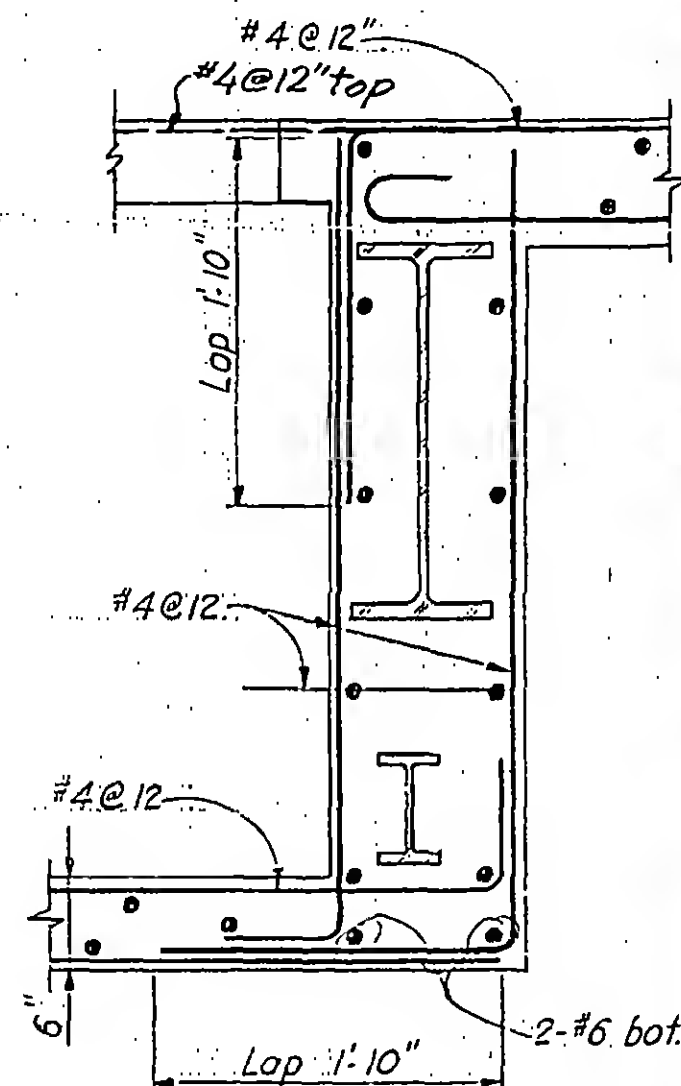
10-24-69



Section F-F



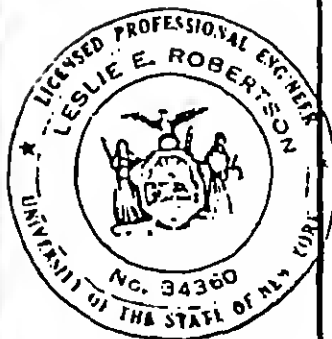
Section J-J



Section G-G

Note: For Plans, see SCA-143

8-AB3-16.3



SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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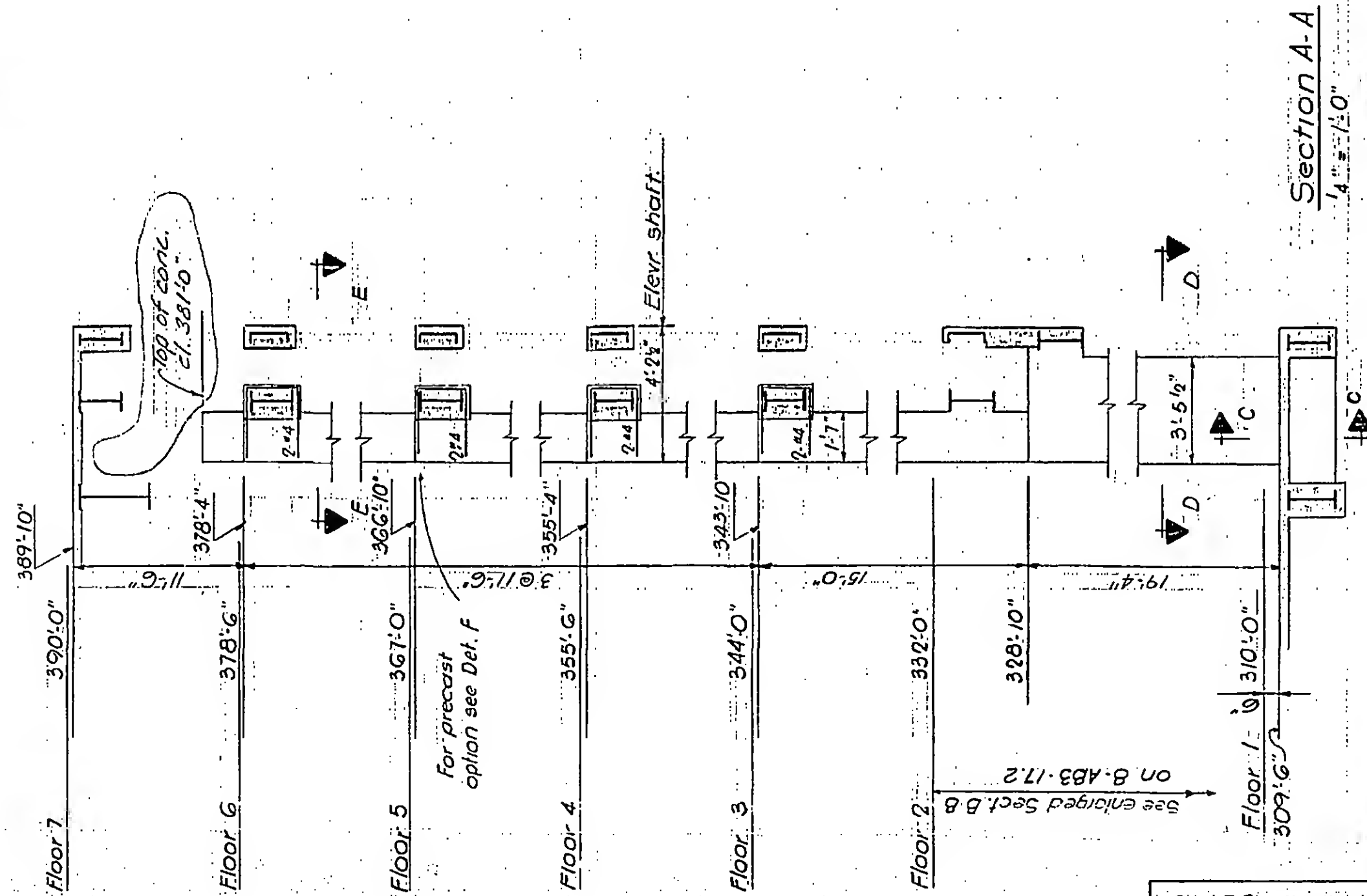
PROJECT THE WORLD TRADE CENTER

TITLE CONCRETE BACKING TO MARBLE

DATE 3-1-68

REVISIONS

4-23-69



8-AB3-17.1

PROJECT THE WORLD TRADE CENTER

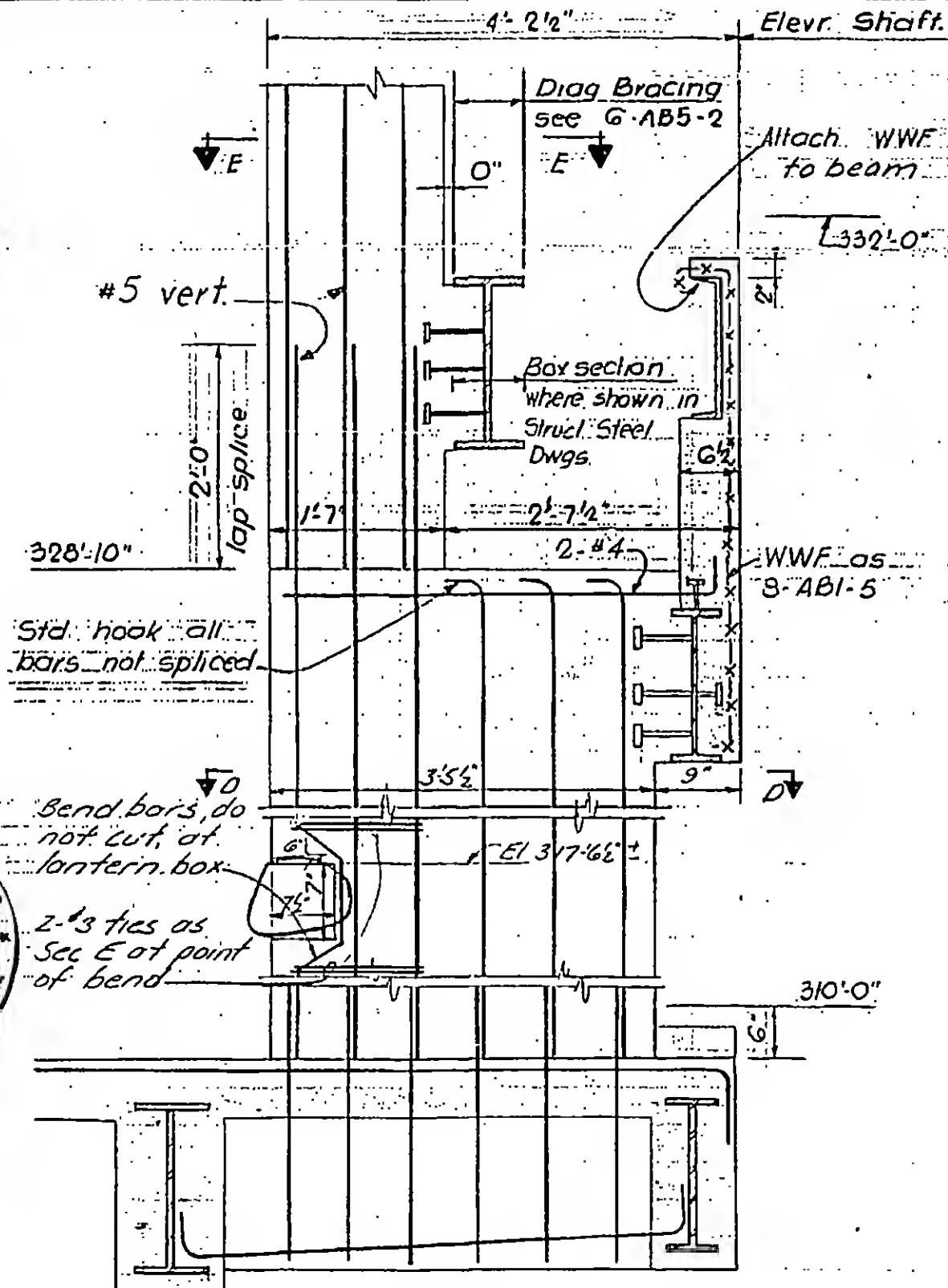
TITLE CONCRETE BACKING TO MARBLE

DATE 3-1-68

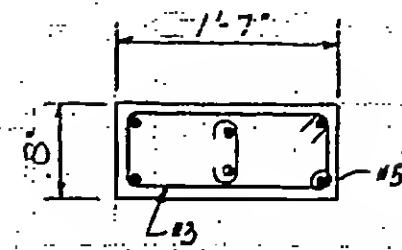
REVISIONS

4-23-69

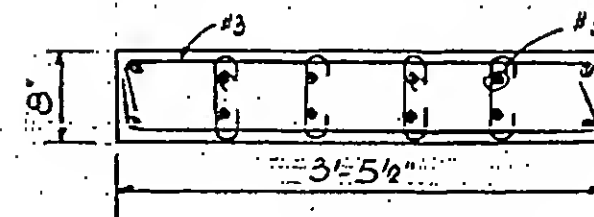
5-15-69



Section B-B

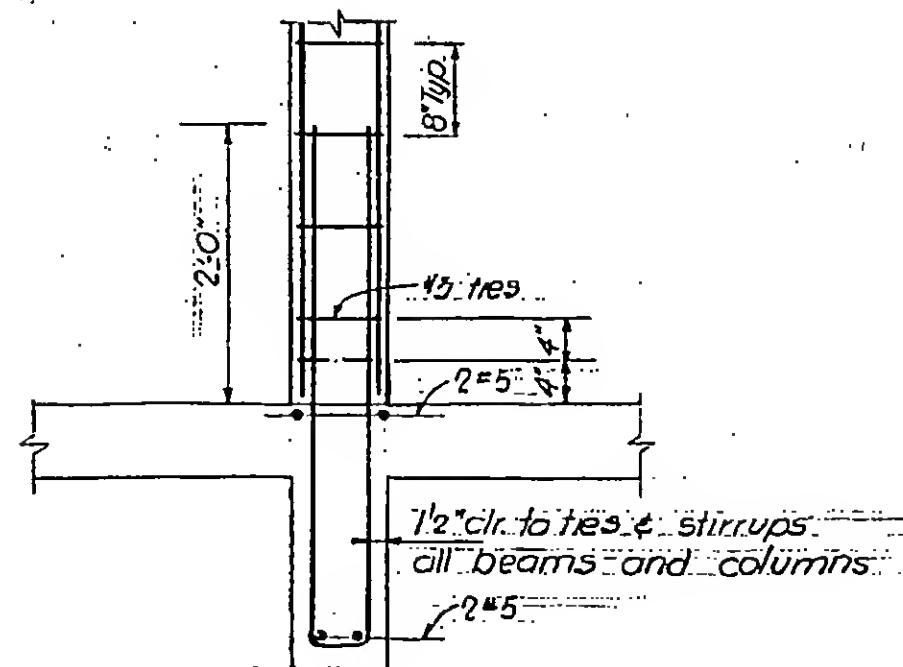


Section E-E

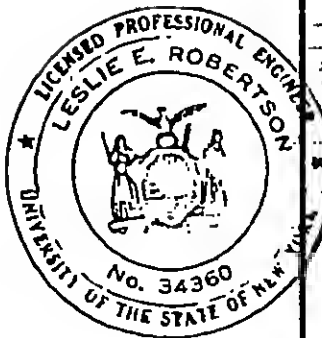


Section D-D

For detail skts, inserts, and other features see Archt. Sections A/266 & C/266 and other Archt. Dwg.

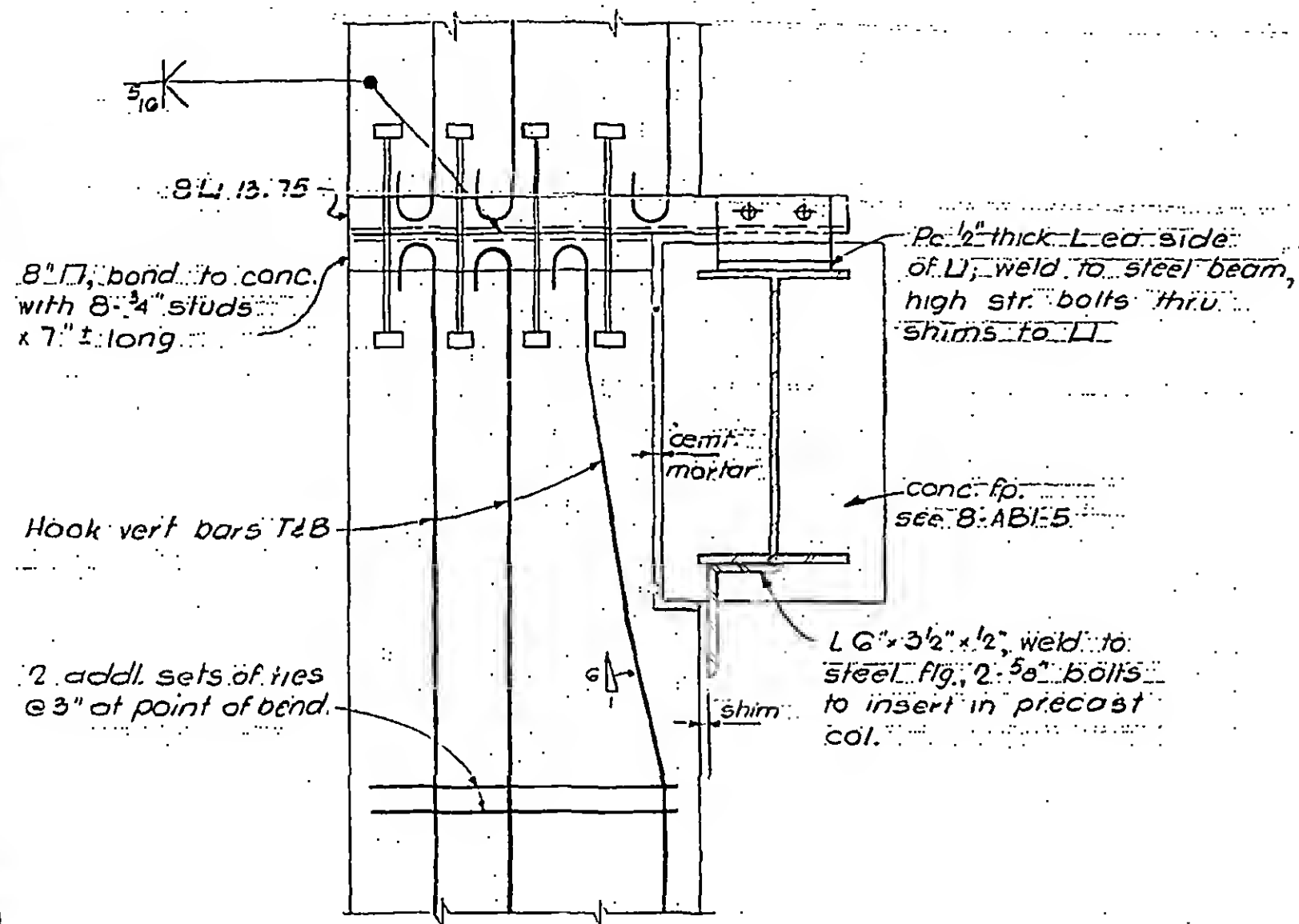


Section C-C



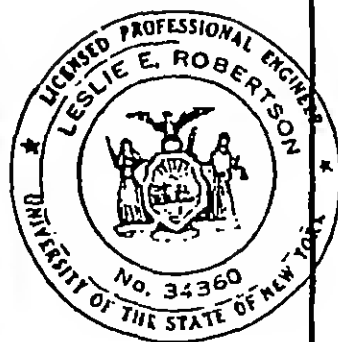
8-AB3-17.2

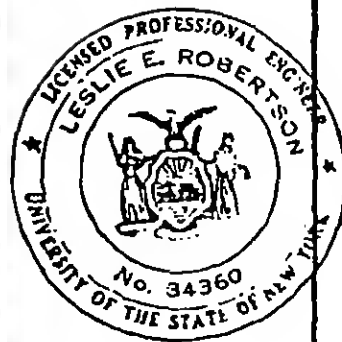
REVISIONS



Detail F -- Precast Option

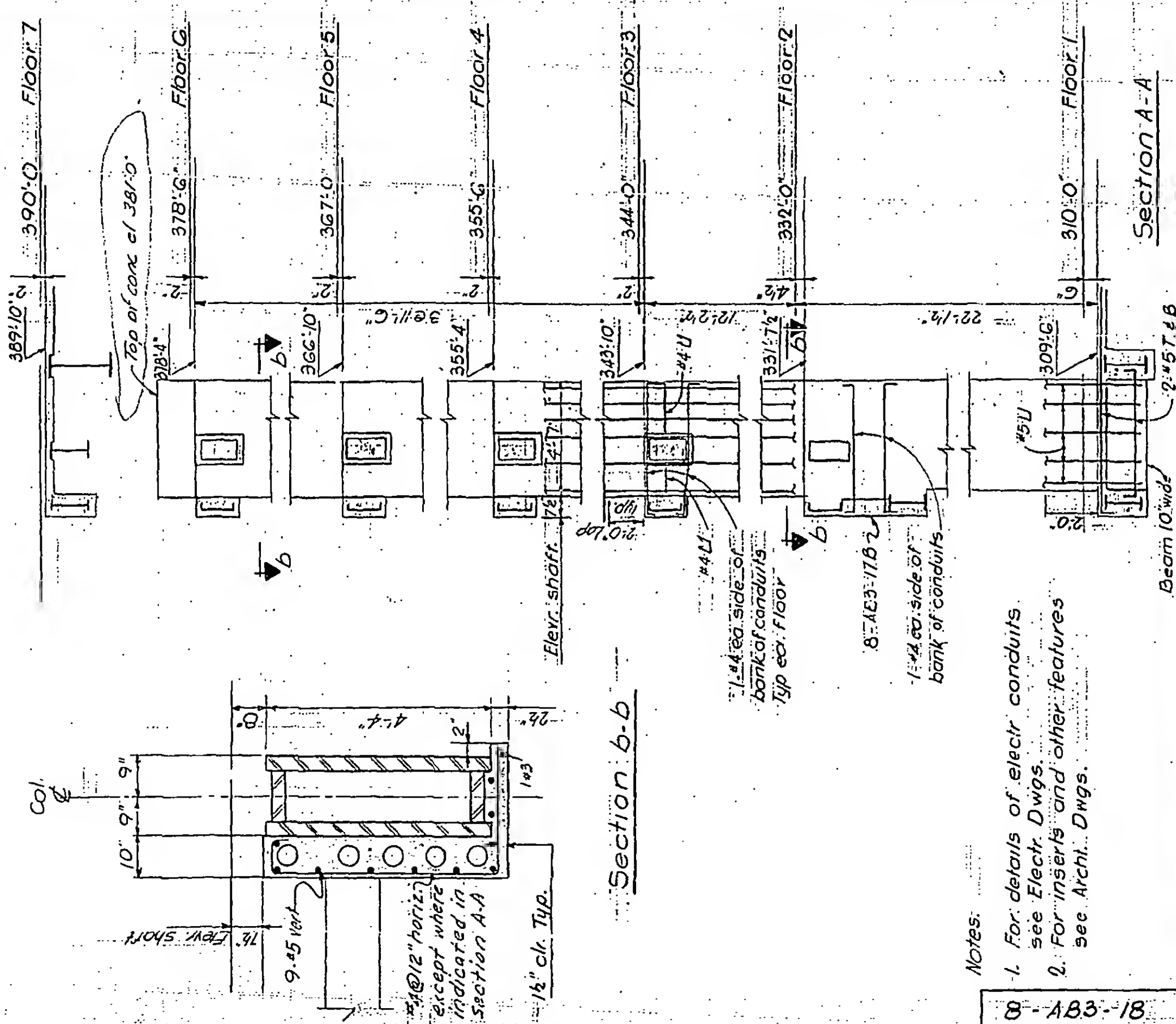
If the precast option is chosen by Contractor, he shall submit full details of all connections, for Engineer's approval before construction. Methods differing from that shown above may be submitted if desired.





REVISIONS

4-23-69



Notes:

1. For details of electr. conduits see Electr. Dwg.
2. For inserts and other features see Archt. Dwg.

8-AB3-18

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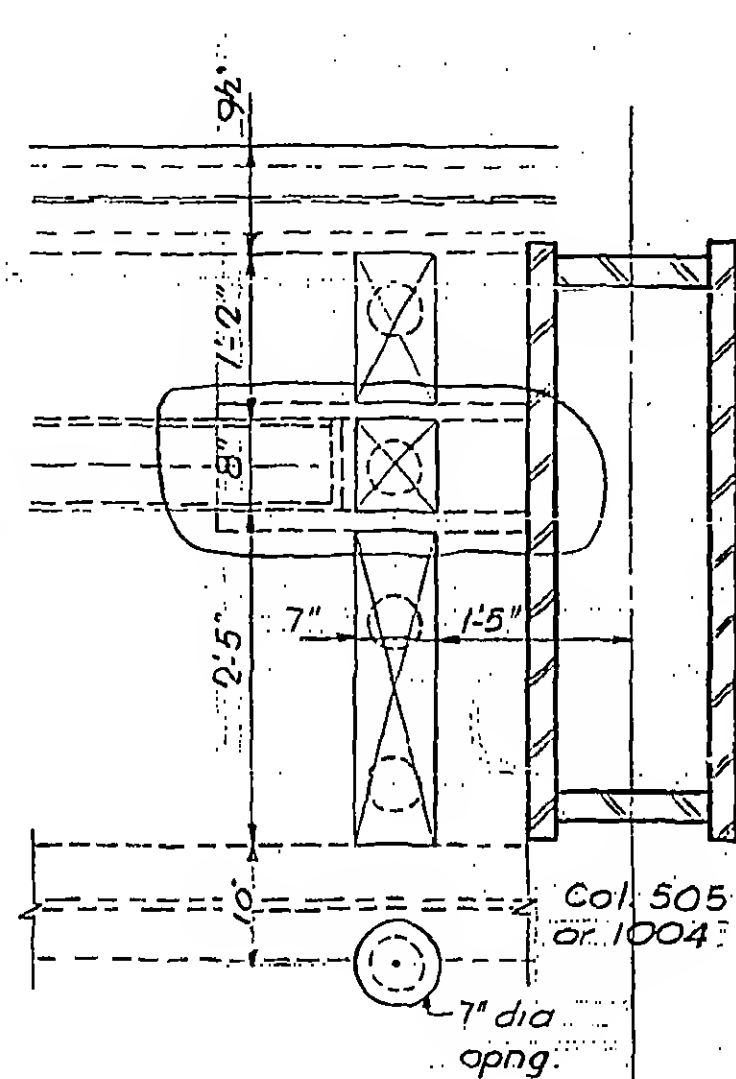
TITLE OPNGS. FOR PRIMARY ELECTR CONDUITS

DATE 3-1-68

REVISIONS

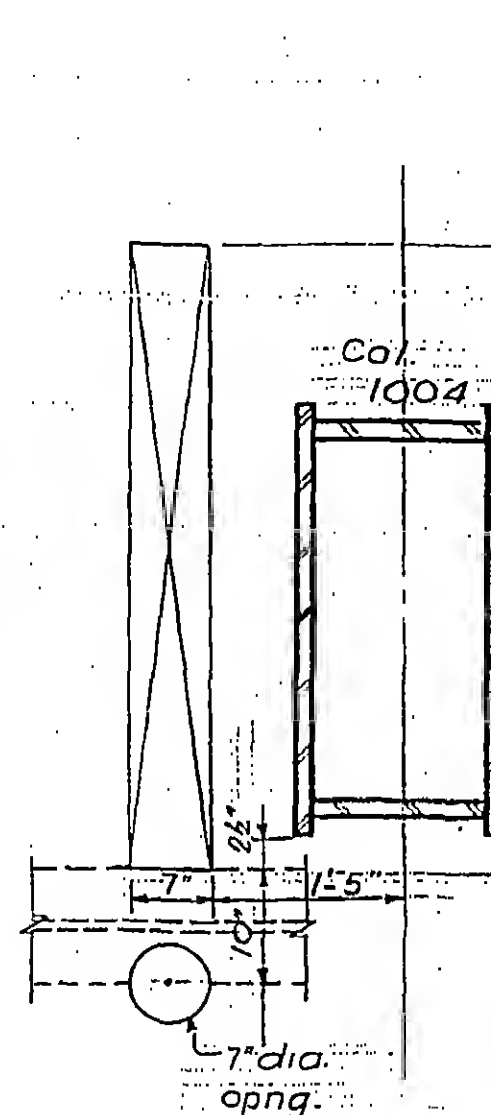
1-28-69

2-11-69



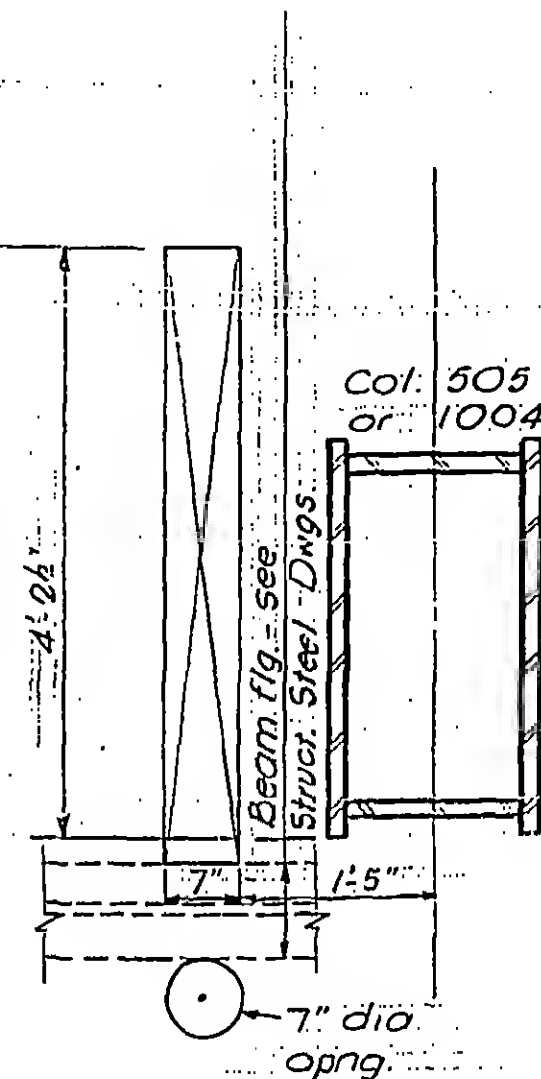
Detail A

Floor 7



Detail B

Floor 75



Detail C

Floor 76

Note to Details A, B, C and D

Fill around conduits
with concrete

8-AB3-19.1



SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

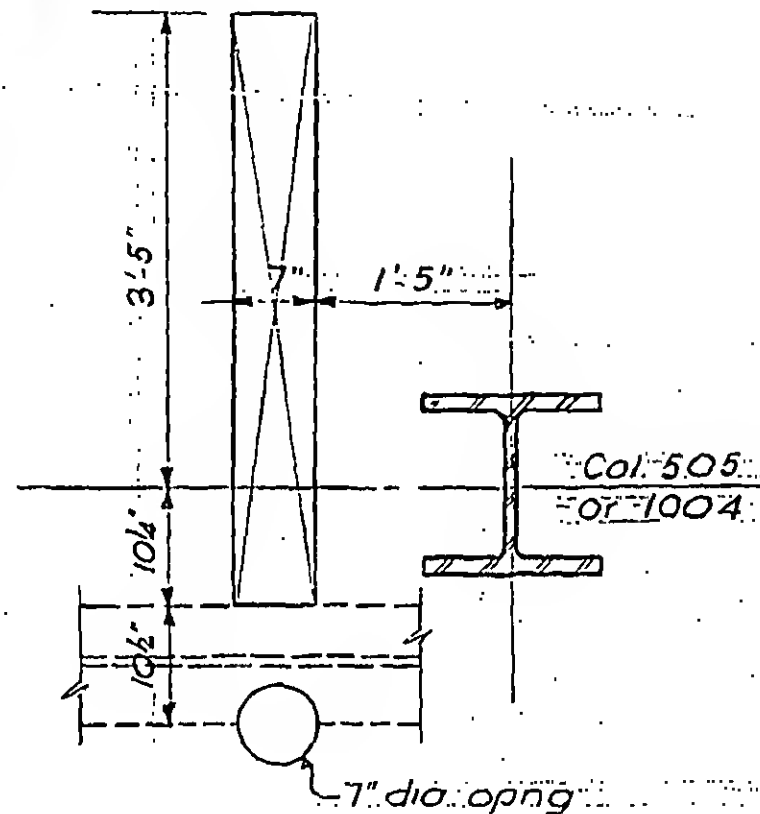
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE OPENINGS FOR PRIMARY ELECTR. CONDUITS

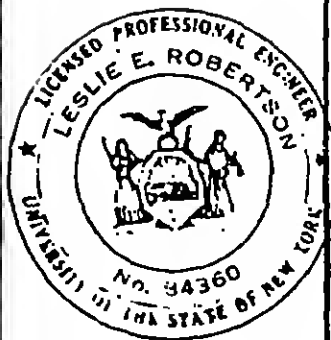
DATE 3-1-68

REVISIONS



Detail D

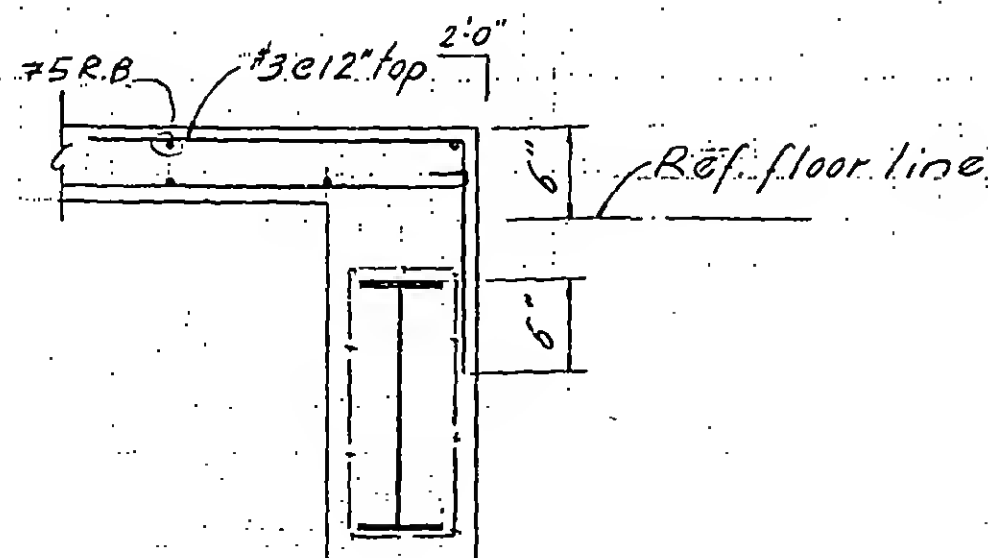
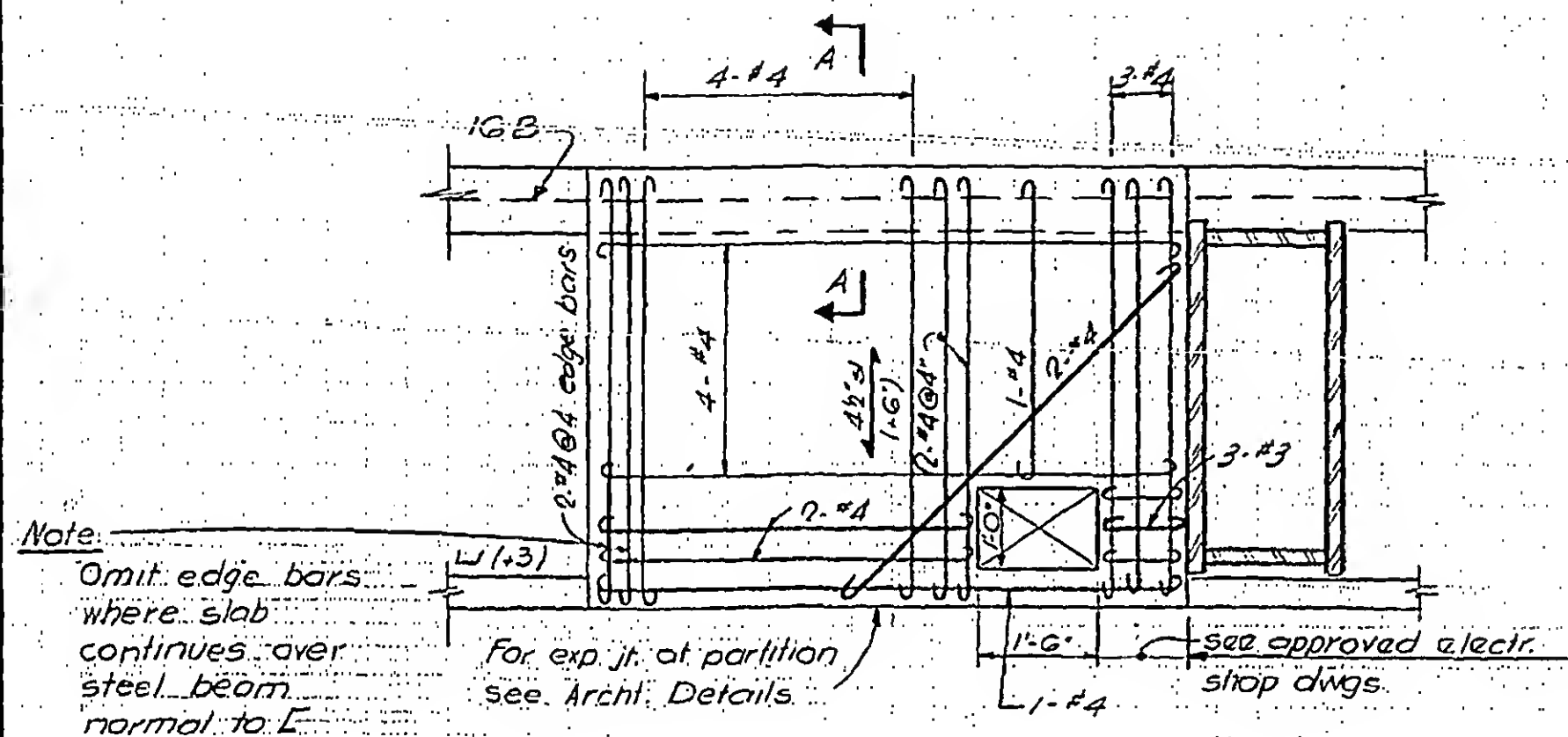
Floor 108



8-AB3-19.2

REVISIONS

3-24-69



Notes

1. Top bars shown in General Detail 8-AB1-3 not required over E.

2. USE DETAIL WITH ONE SLOT
(THIS SHEET) OR WITH TWO
SLOTS (SHEET 8-AB3-20.2)
AS REQUIRED ON APPROVED
ELECTRICAL SHOP DRAWINGS

8-AB3 20.1

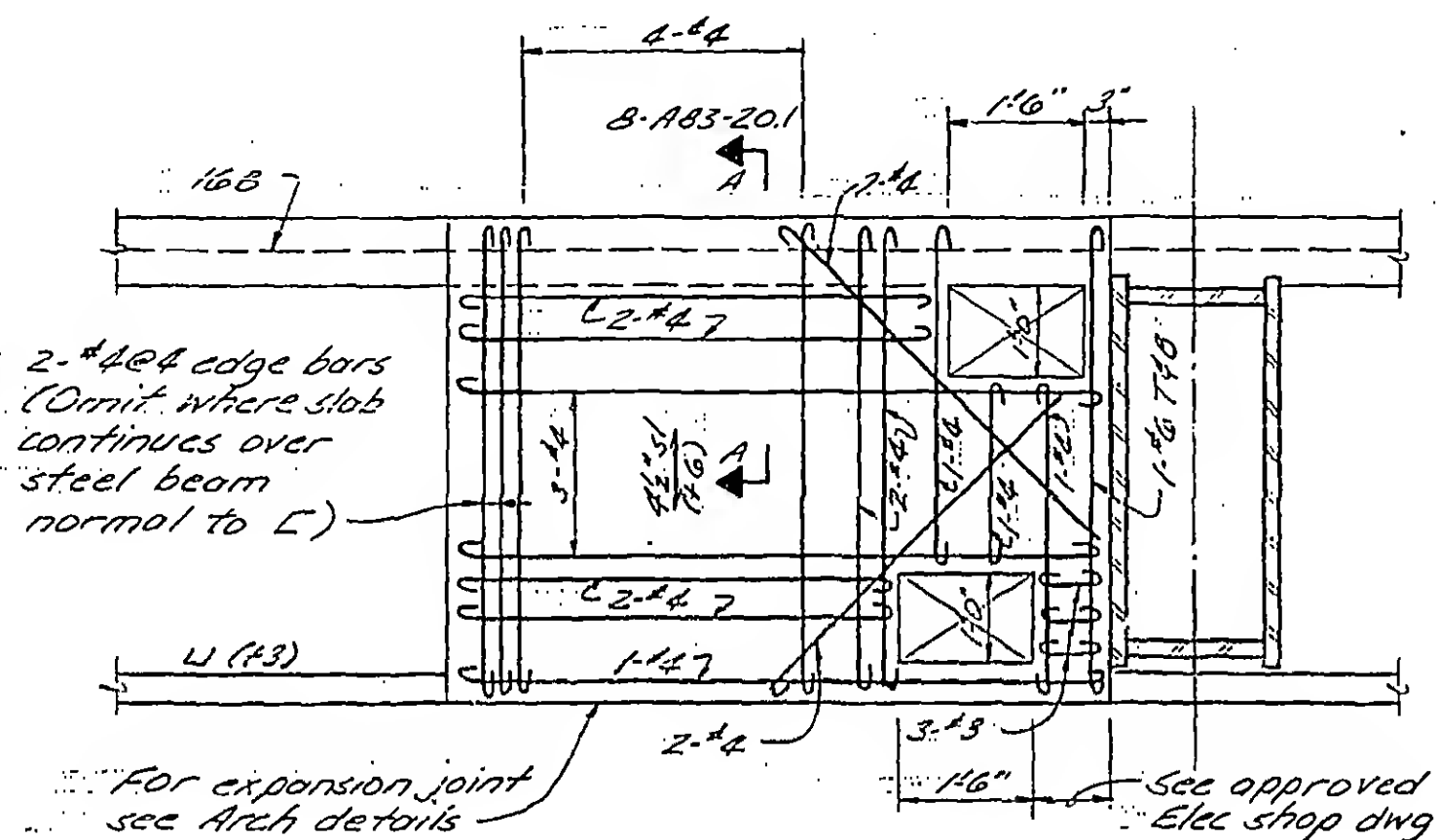
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

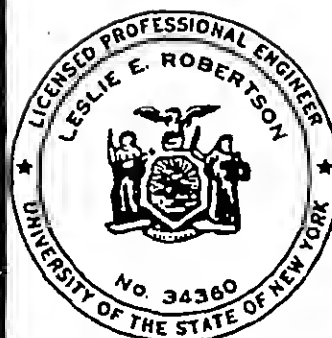
TITLE TELEPHONE CLOSET AT COL 506 & 1003 ATEL (HG)

DATE 3-24-69

REVISIONS



For notes see
Sheet 8-AB3-ZO.1



DESIGNED
A.L.A.
DRAWN

PRAYM

REVIEWED

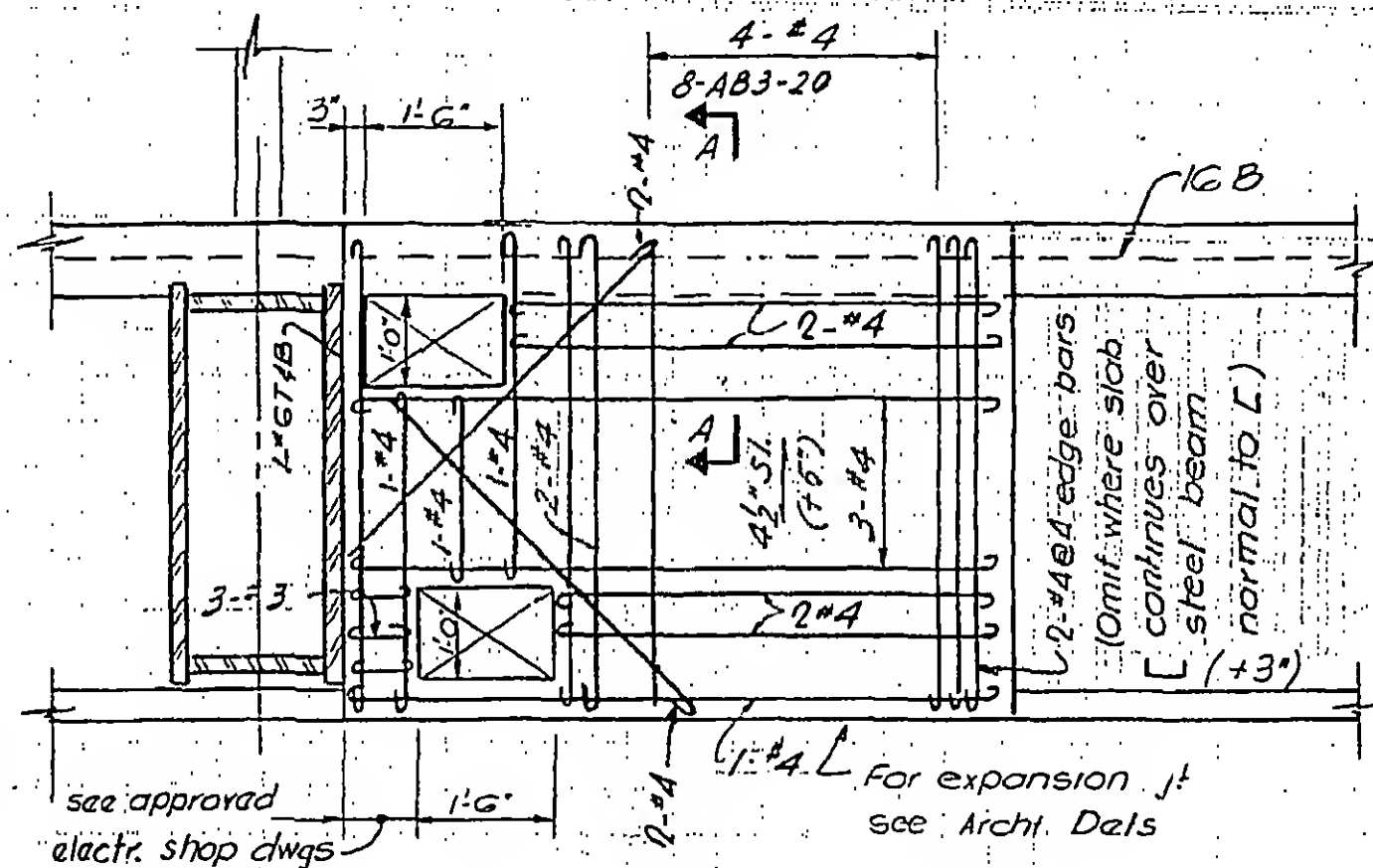
8-AB3-20.2

Structural & Civil Engineers

TITLE TELEPHONE CLOSET WITH 2-OPNGS, AT EL. (+6")

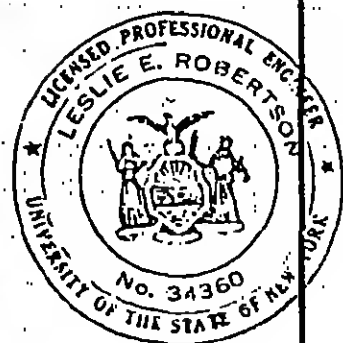
DATE 3-1-68.

REVISIONS



Notes:

1. Top bars shown in General Detail 8-ABI-3 not required over []



8-4B3-71

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET (AT COL 506 & 1003 AT EL. (+0'))

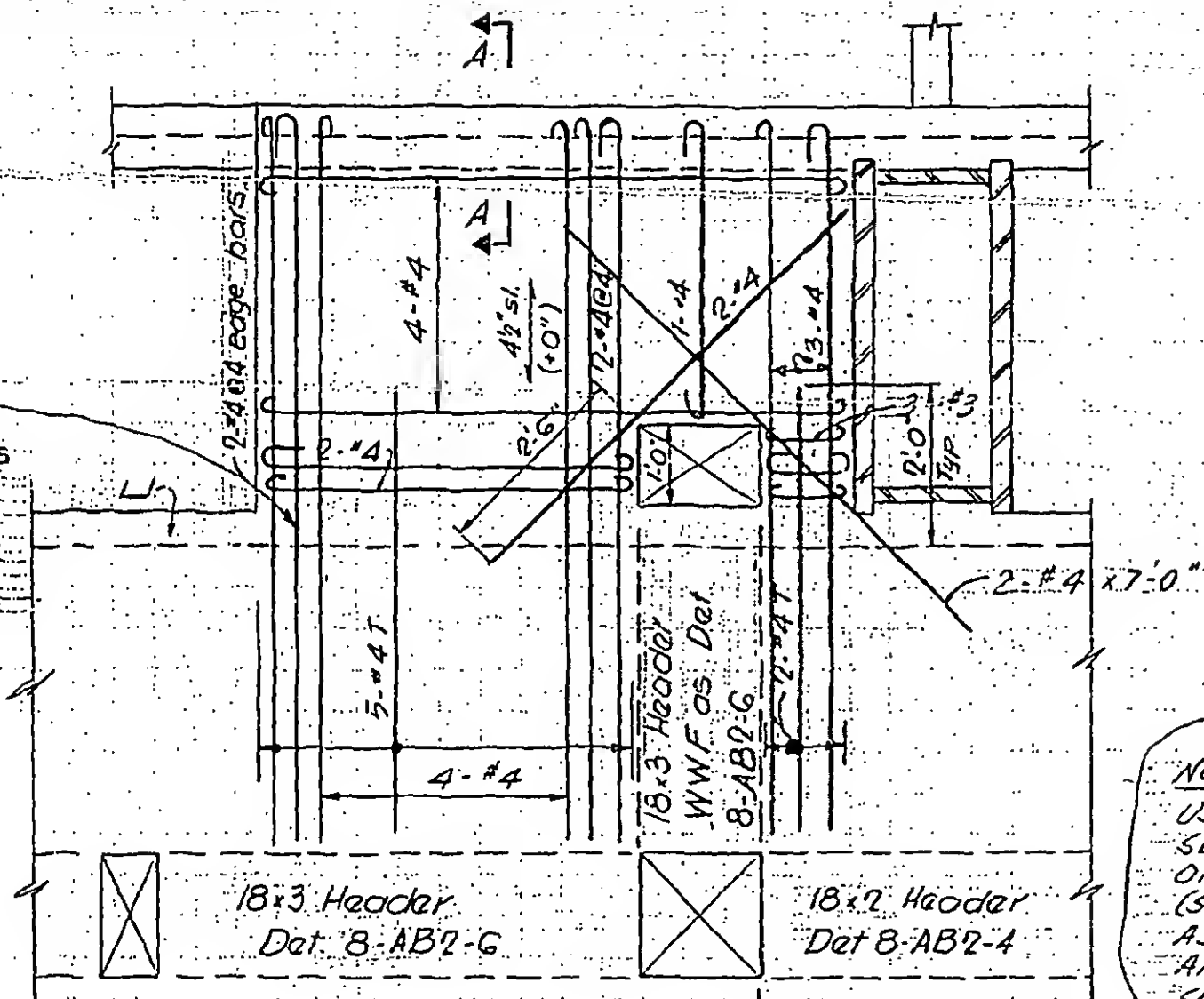
DATE 3-1-68

REVISIONS

3-24-69

Note:

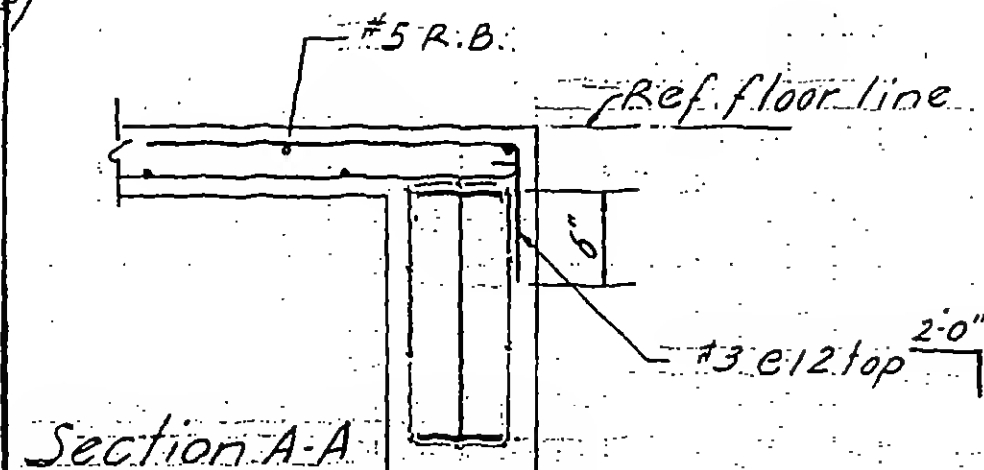
Omit edge bars
where slab
continues over
steel beam
normal to L



NOTE

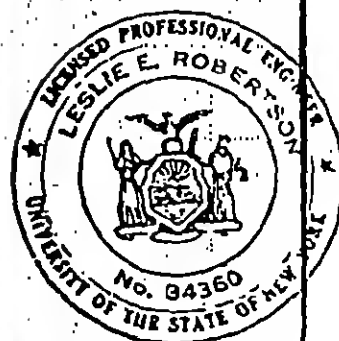
USE DETAIL WITH ONE
SLOT (THIS SHEET)
OR WITH TWO SLOTS
(SHEET 8-AB3-23.2)
AS REQUIRED ON
APPROVED ELECTRICAL
SHOP DRAWINGS

For dimension
see approved
Electr. shop dwgs.



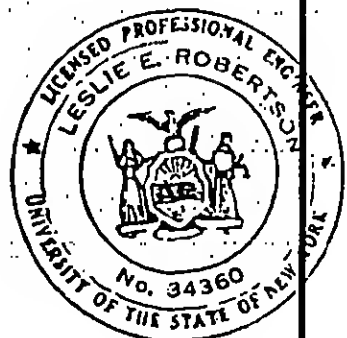
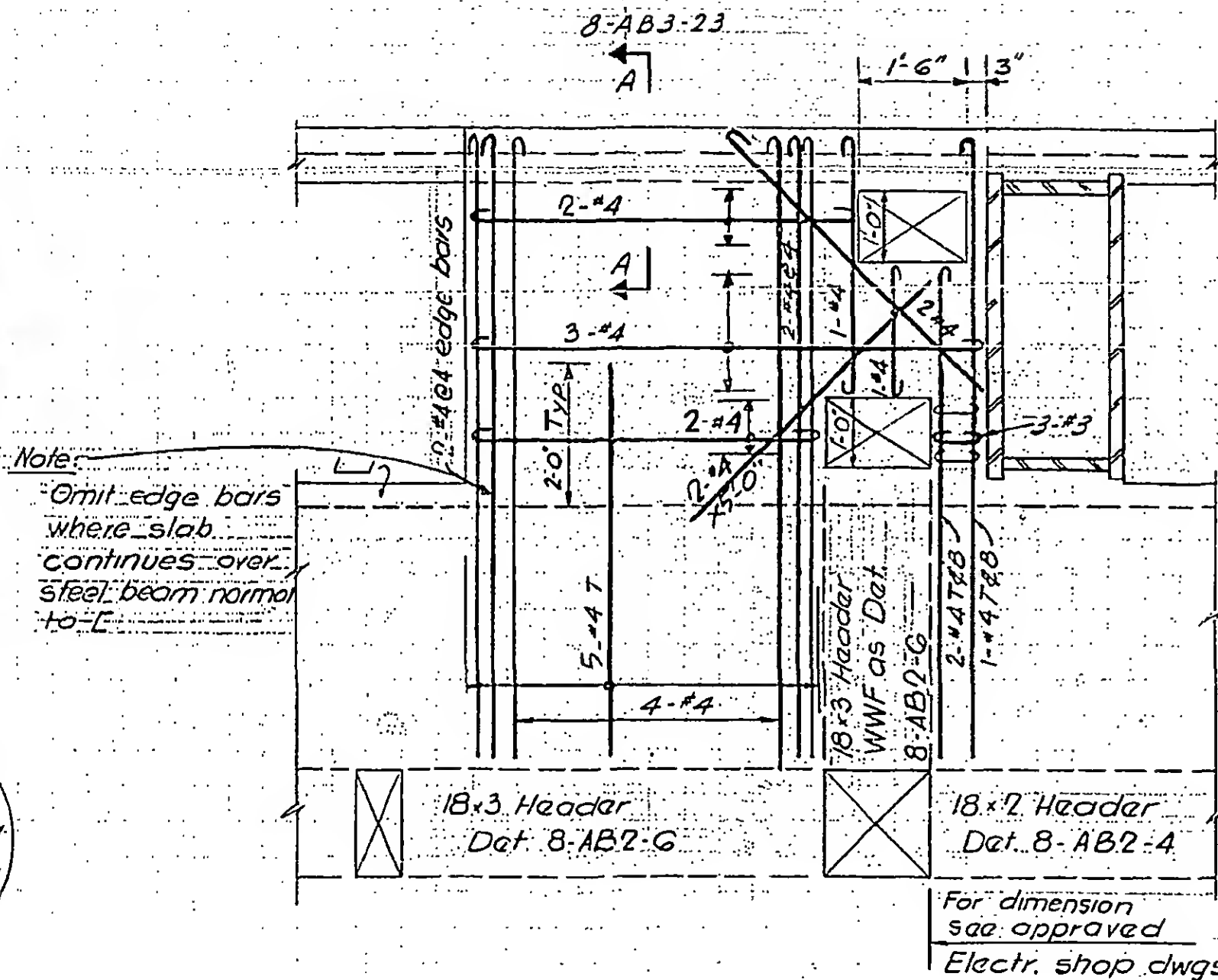
Section A-A

8-AB3-23.1



REVISIONS

RE-NUMBERED
4-7-69



8-AB3-23.2

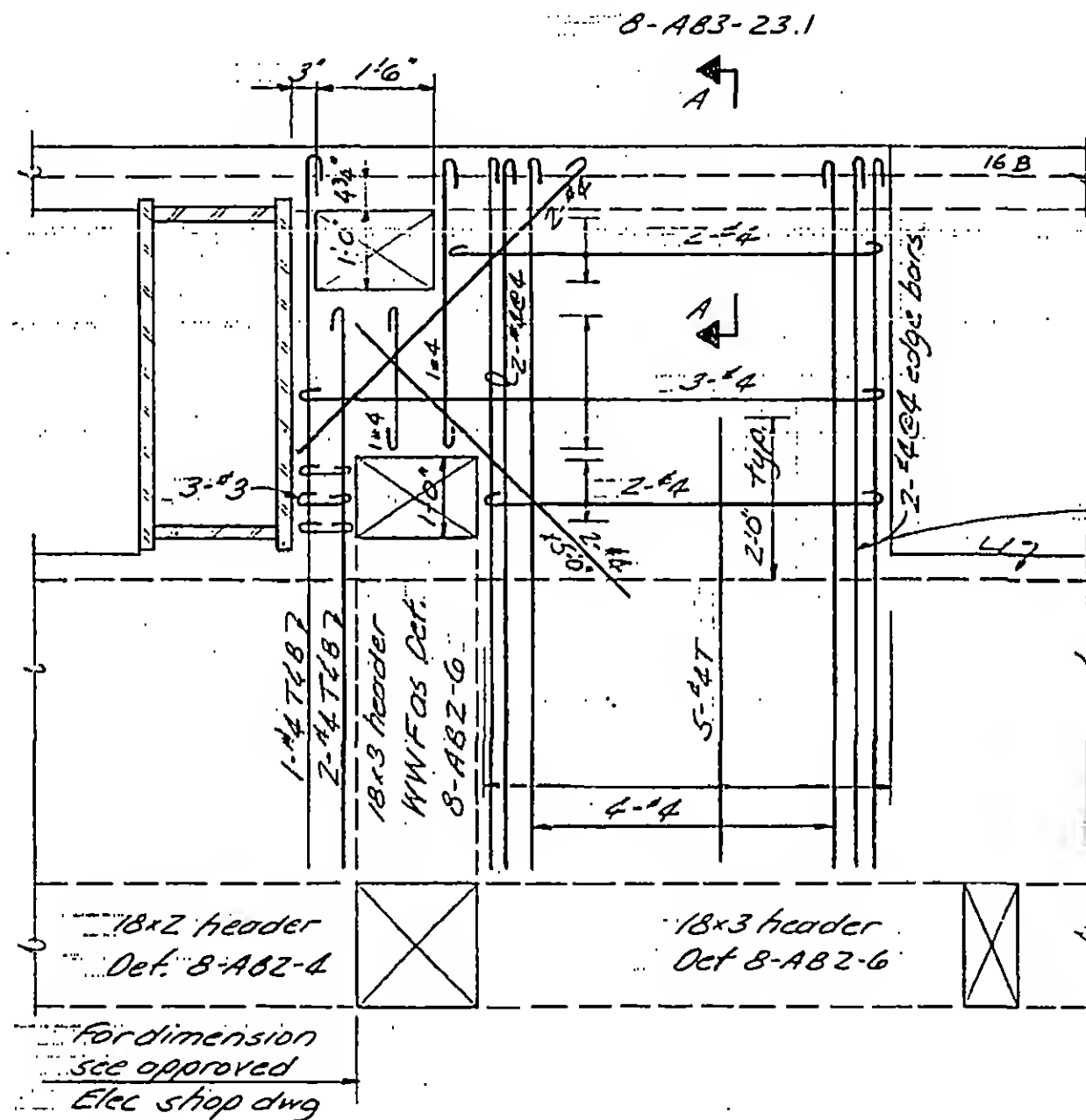
Structural & Civil Engineers

TITLE TELEPHONE CLOSET (WITH 2 OPNGS) AT EL (+0')

DATE 3-24-69

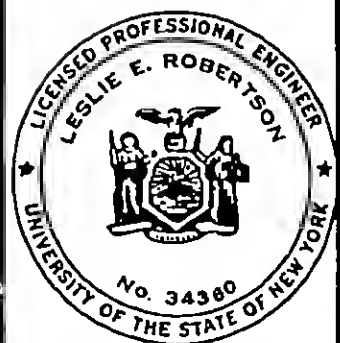
REVISIONS

TITLE AND NO.
REVISED
4-7-69



- Notes:

○ Omit edge bars where slab continues over steel beam normal to L



DESIGNED

A.L.A.

DRAWN

REVIEWED

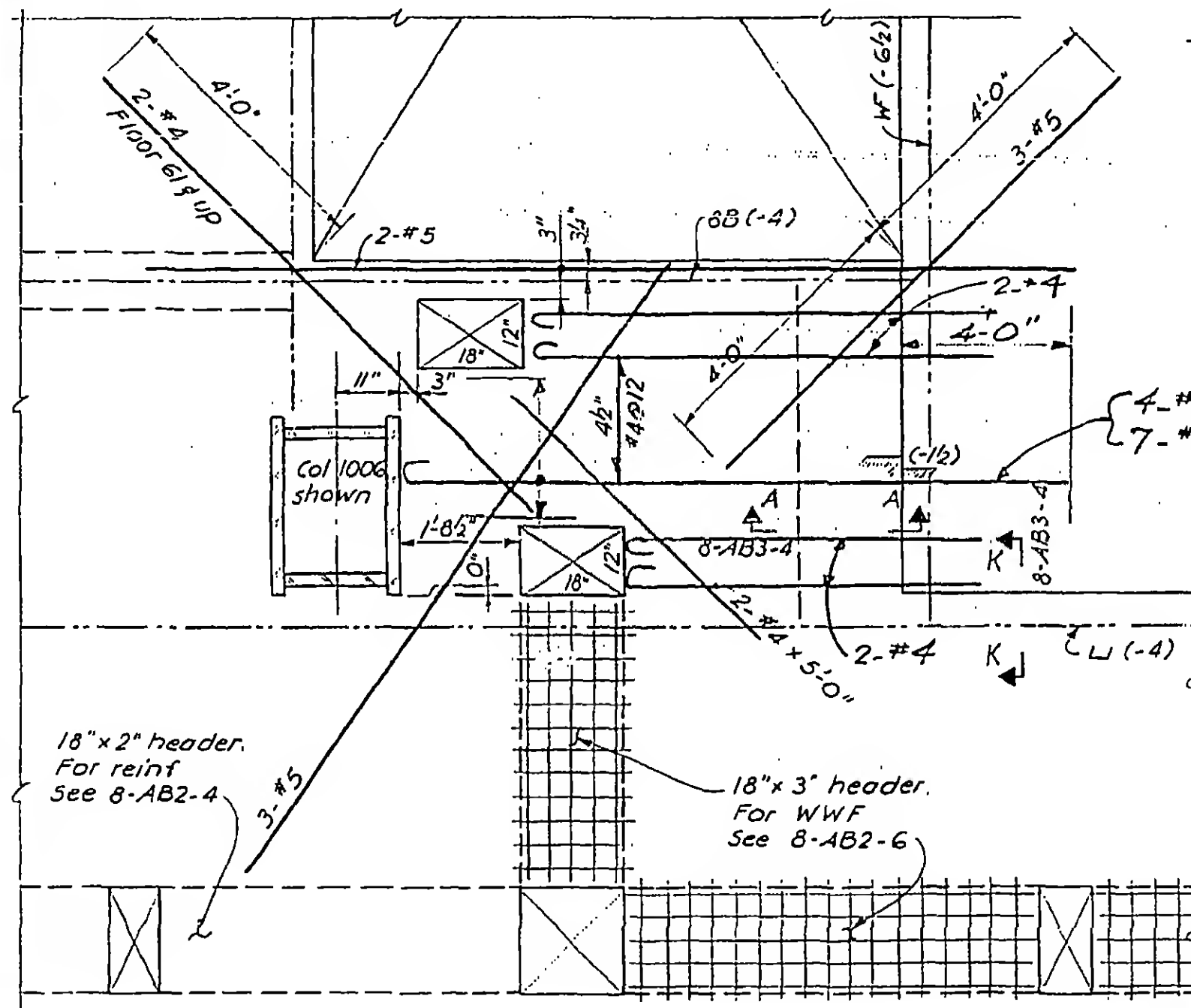
8-AB3-24.

Structural & Civil Engineers

TITLE TELEPHONE CLOSET WITH TWO SLEEVES @ EL (+0)

DATE... 10-24-69

REVISIONS



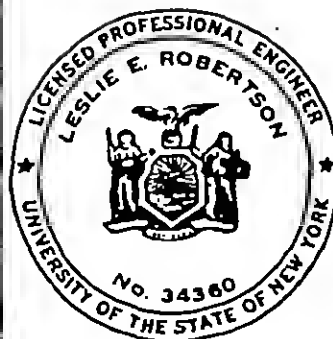
Notes:

1. Detail drawn for col 1006 at floor 61. Other locations similar, except as shown in Plans and approved Electrical Shop Dwg.
2. Reinf not shown similar to sheet 8-AB3-24.1.

{ 4-#4 Det 24.2
7-#5 Det 24.2A

18" x 2" header.
For reinf
See 8-AB2-4.

- 18" x 3" header.
For WWF
See 8-AB2-6\



DESIGNED

DRAWN

F. Smith

REVIEWED

8-AB3-24.2

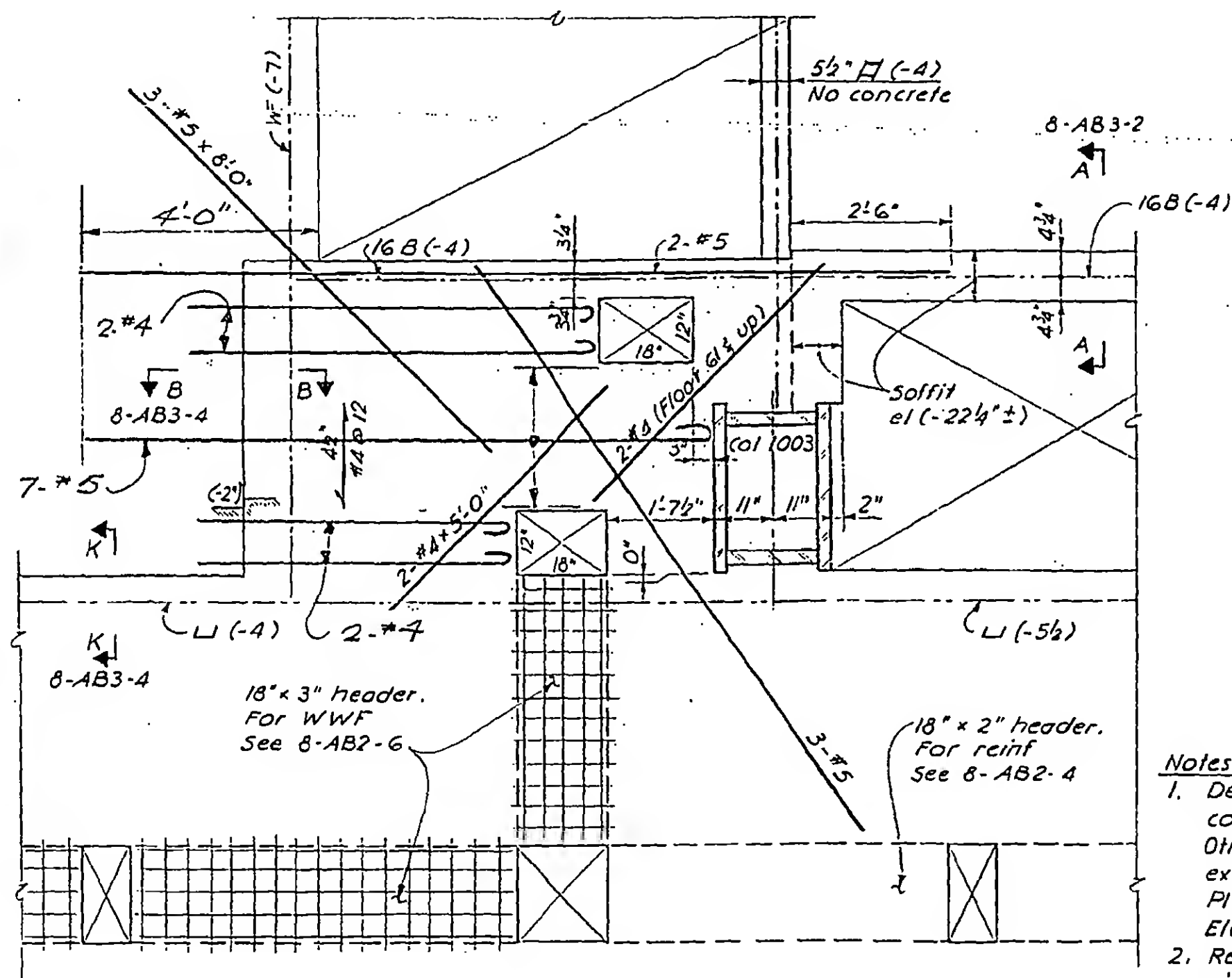
Structural & Civil Engineers

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TITLE TELEPHONE CLOSET WITH TWO SLEEVES @ EL (40)

DATE 10-24-69

REVISIONS



Notes:

1. Detail drawn for col 1003 at floor 61. Other locations sim., except as shown in Plans and approved Electrical Shop Dwg.
2. Reinf not shown similar to sheet 8-AB3-24.1.



DESIGNED

DRAWN

...F. Smith

REVIEWED

8: AB3-24.3

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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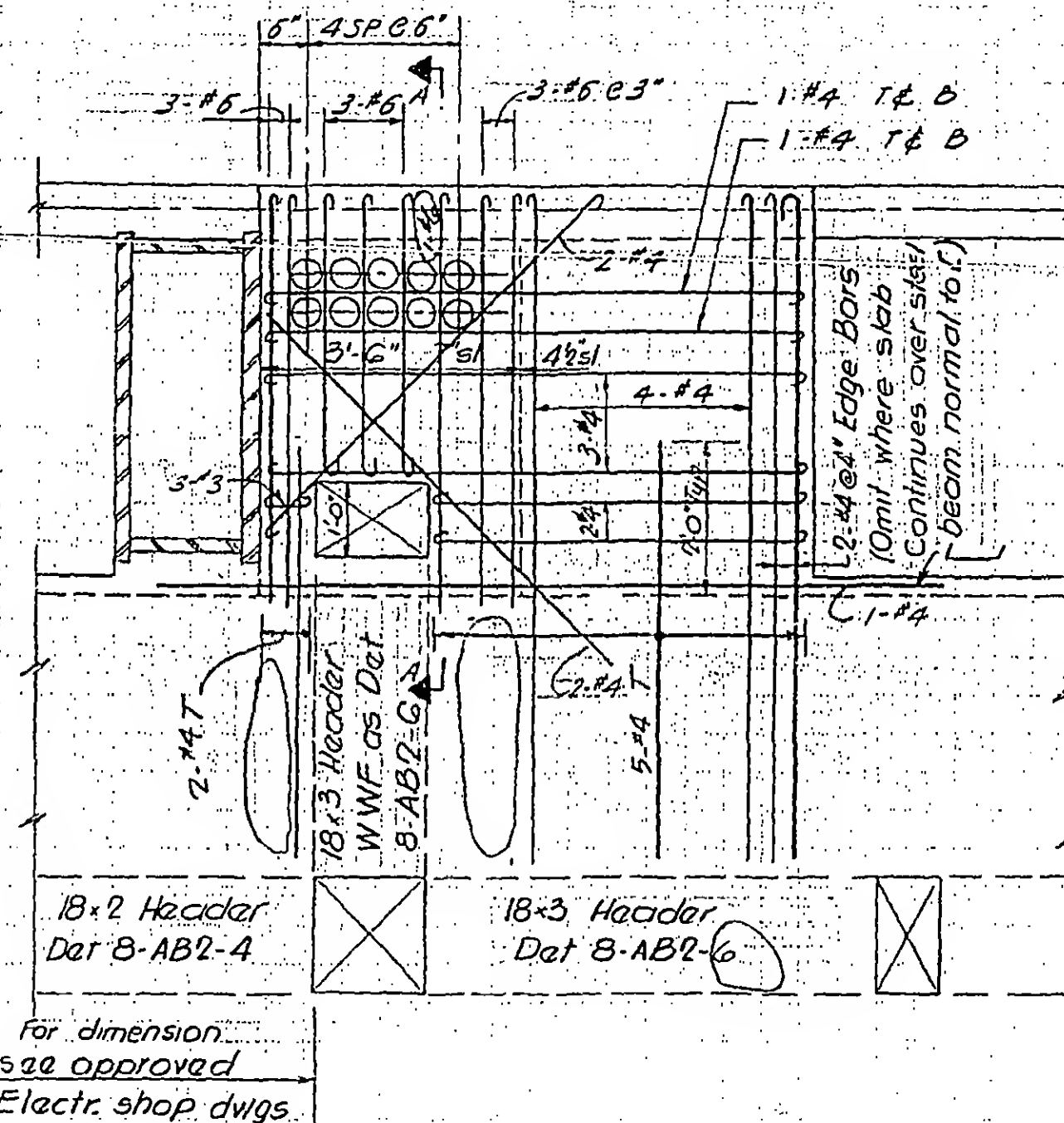
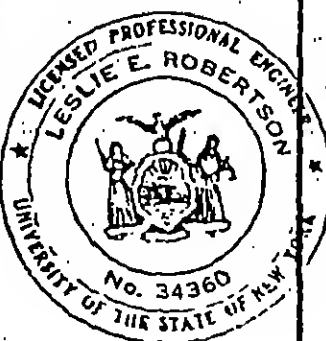
PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET WITH SLEEVES AT EL. (+0")

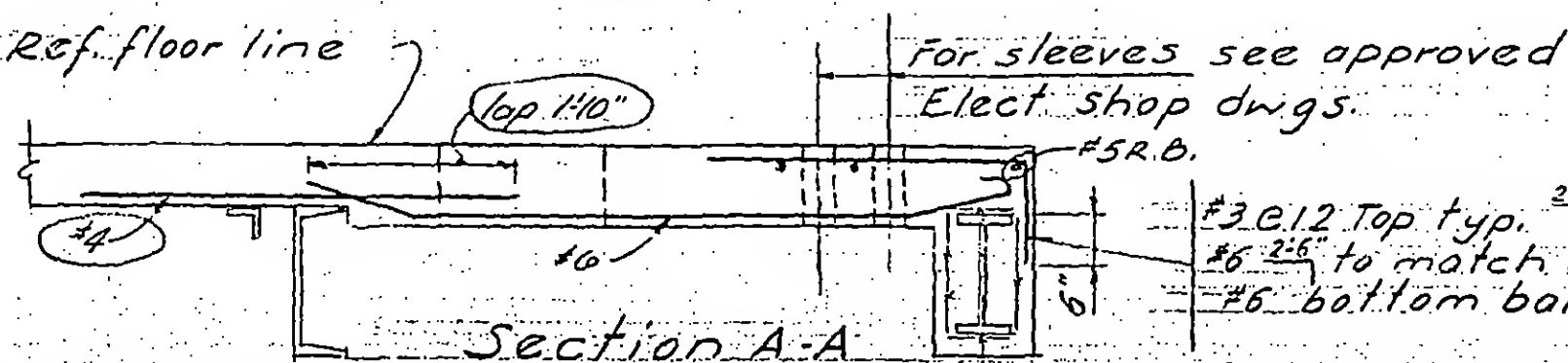
DATE 3-1-68

REVISIONS

4-7-69



Ref. floor line



Section A-A

8-AB3-251

Structural & Civil Engineers

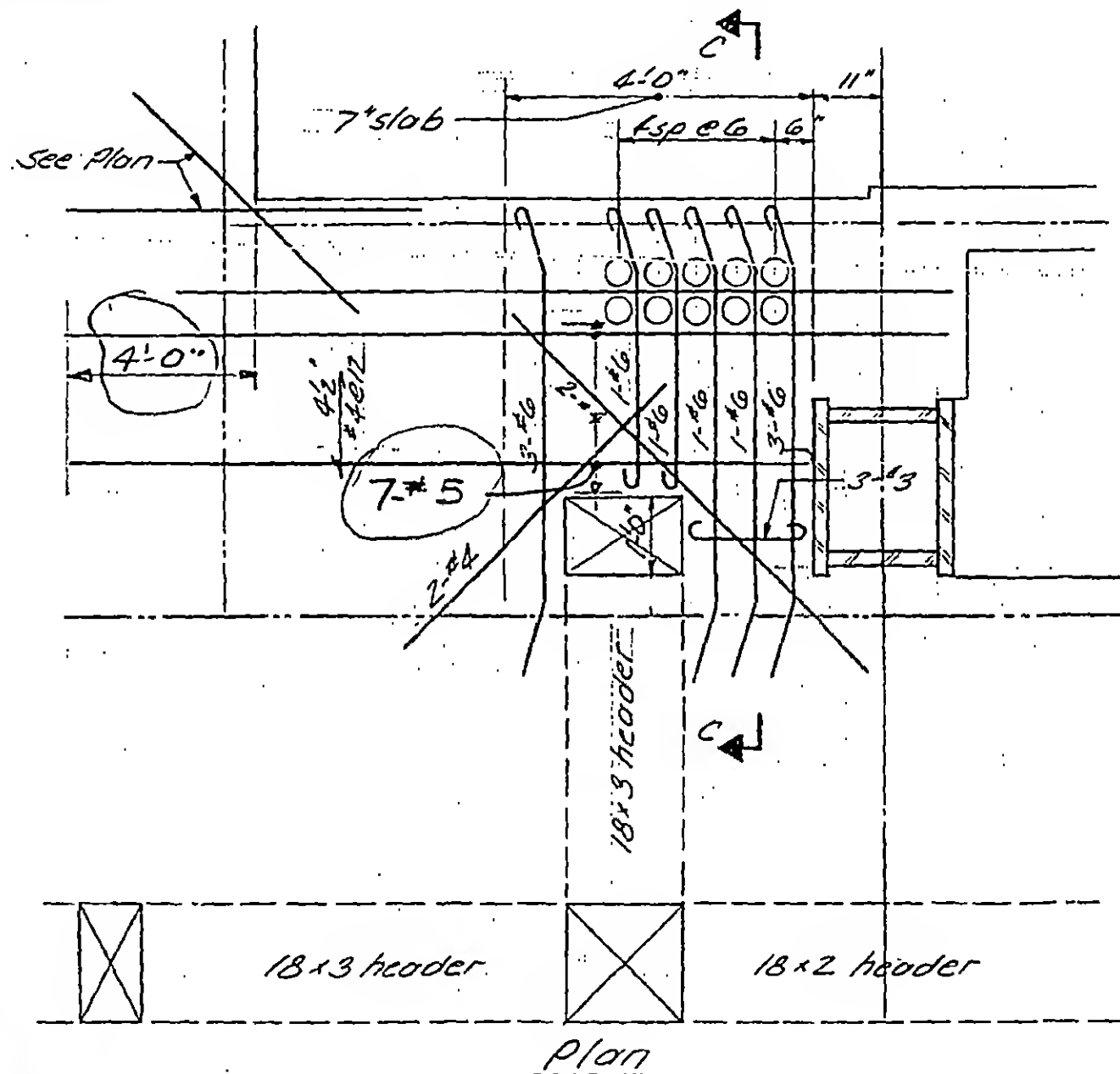
PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET WITH SLEEVES ATEL (O)

DATE 4-7-69

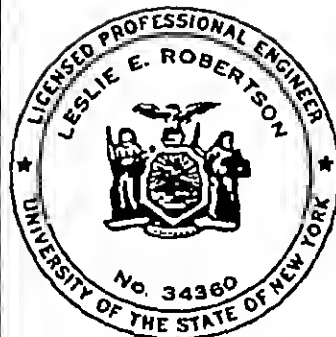
REVISIONS

10/24/69



NOTES:

1. Floor 67 of Col 1003 shown
Other locations similar; for
modifications see Plans.
Where an opening exists at
edge of telephone closet
provide 2-#4 edge bars
similar to sheet 8-AB3-25.1.



DESIGNED
A. L. A.
DRAWN

For raiser bars see
8-ABI-3

For read lap
see 8-AB1-3-

4012 top,

(F4012)

Q. # sleeves

#4 top to match #6 bot
#3 @ 12 top where no #6 bot

Section C-C

8-AB3-25.2

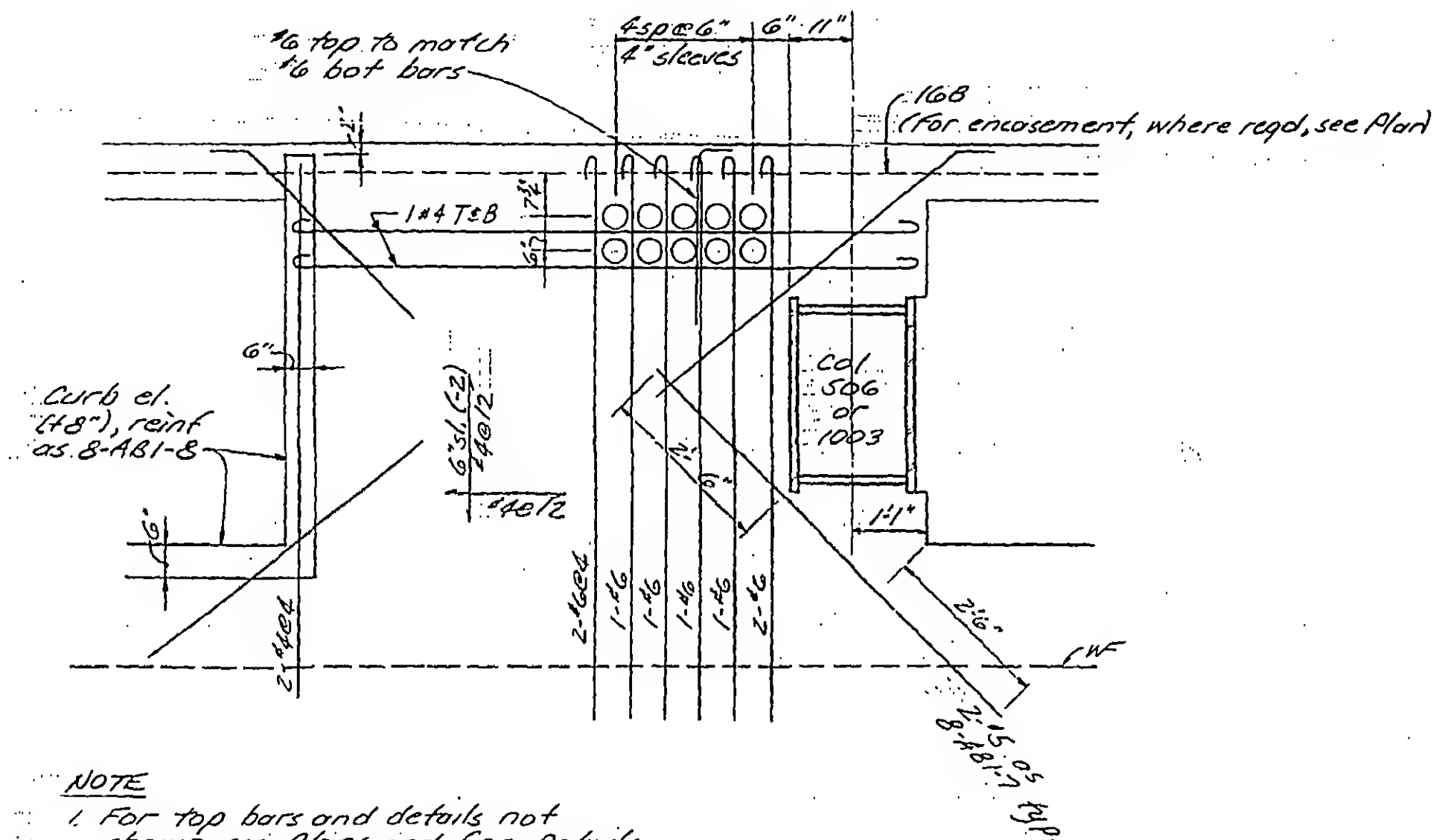
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE SLEEVES AT EL (-Z)

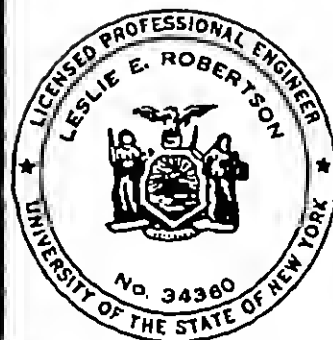
DATE 4-7-69

REVISIONS



NOTE

1. For top bars and details not shown see Plans and Gen Details.
2. Floor 75 at Col 506 shown. Other locations similar; for modifications see Plans.



DESIGNED
A.L.A.

DRAWN

J. Adams

REVIEWS

8-AB3-25.3

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

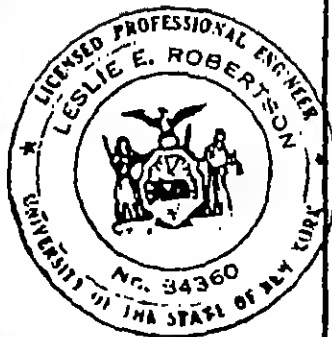
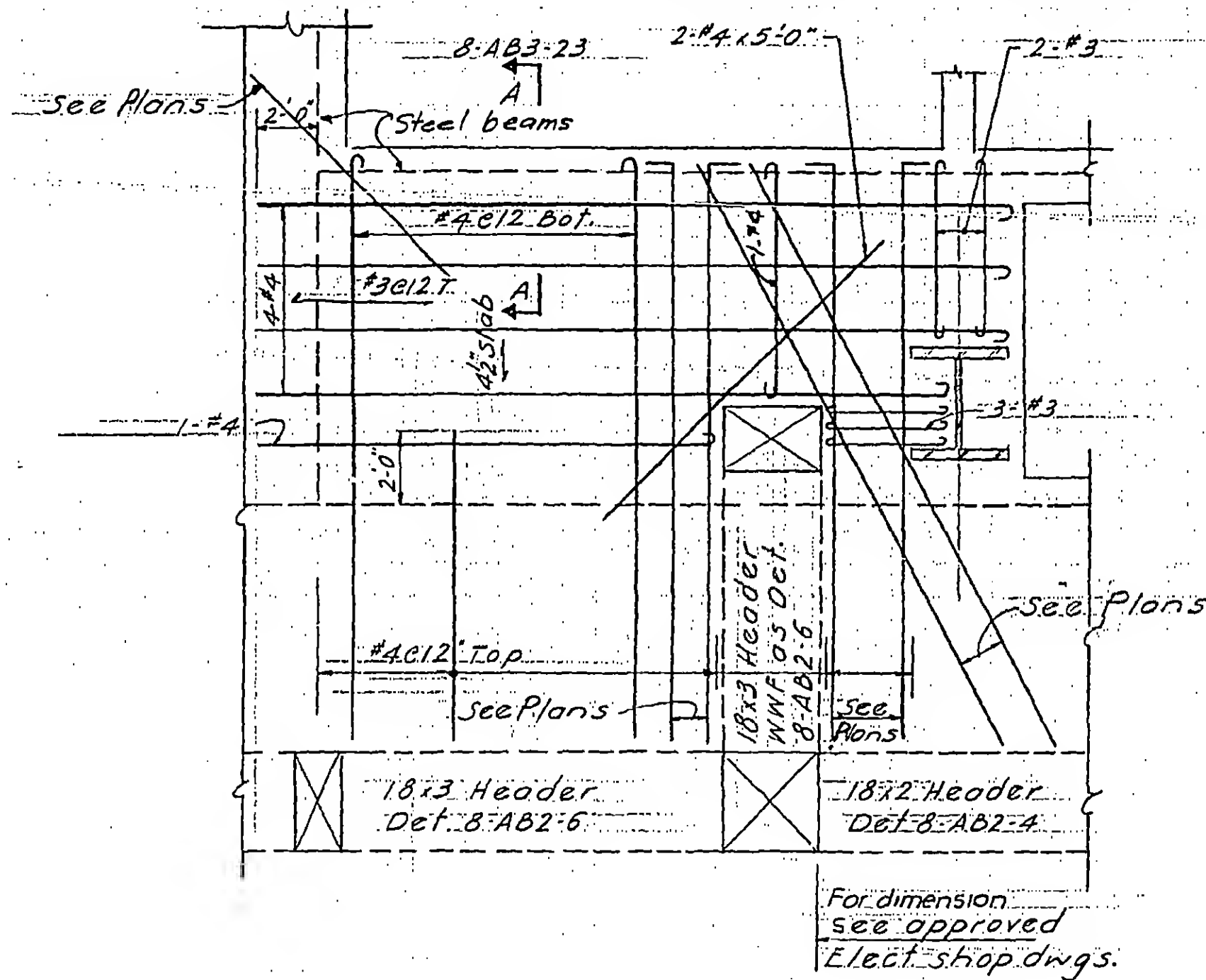
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET WITH ONE OPNG. AT EL. (FO')

DATE 3-1-68

REVISIONS



8-AB3-26

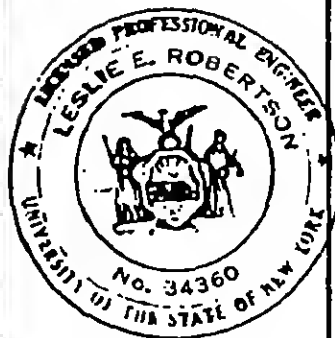
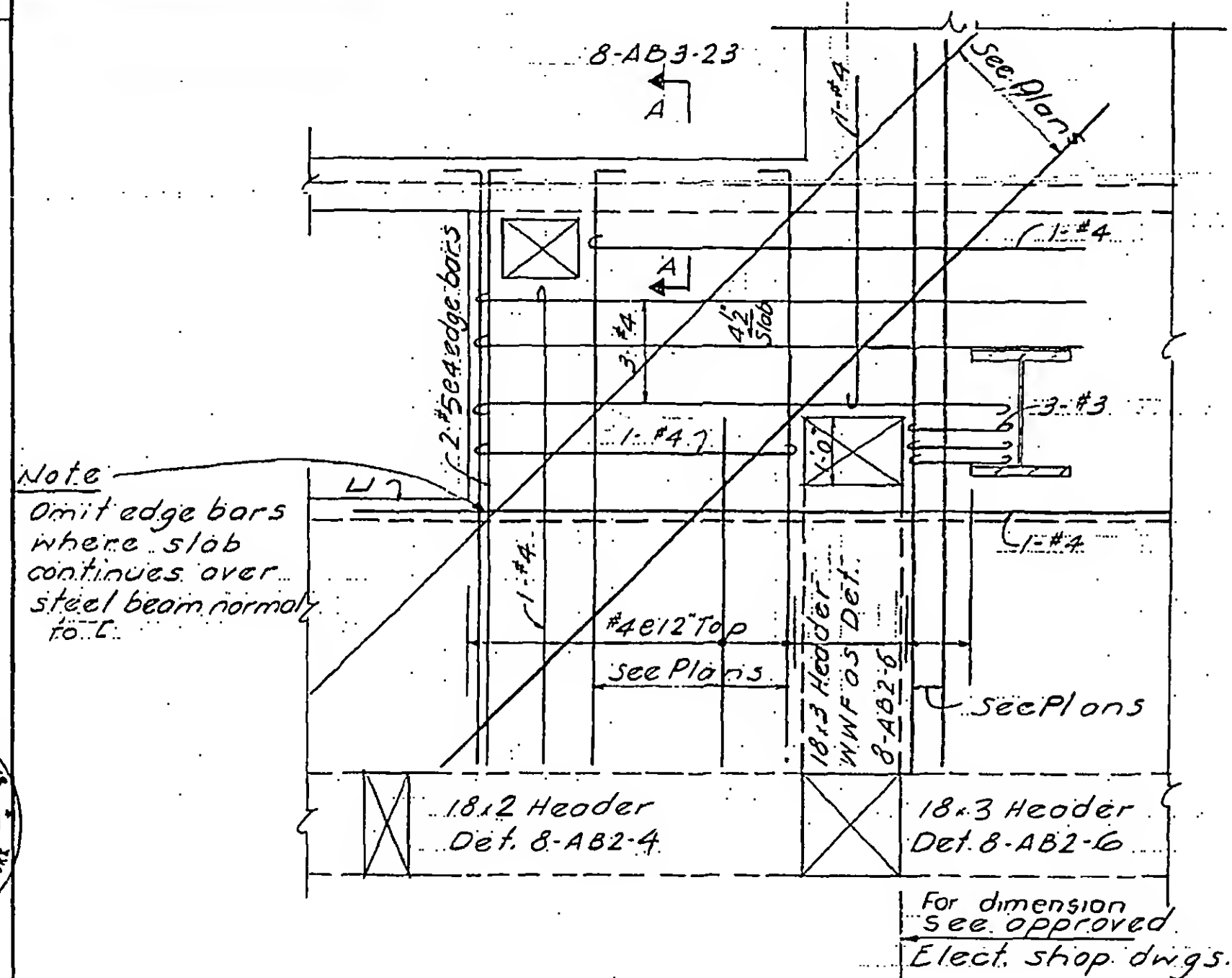
Structural & Civil Engineers

PROJECT *THE WORLD TRADE CENTER.*

TITLE TELEPHONE CLOSET WITH TWO OPNGS, AT EL. (+0")

DATE 3-1-68

REVISIONS



8-AB3-27

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET WITH TWO OPNGS, AT EL. (+0")

DATE 3-1-68

REVISIONS

*See approved
Elect. shop dwgs.*

18x3 Header
Det. 8-AB2-6

18x2 Header
Det. 8-AB2-4

See Plans

See Plans

See Plans

#4 @ 12 Top

1-#4

2'-0"

1-#4

1-#4

1-#4

See Plans

A

8-AB3-23



8-ADJ-20

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

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PROJECT THE WORLD TRADE CENTER

TITLE ELECTRICAL CLOSET AT EL. (+6")

DATE 3-1-68

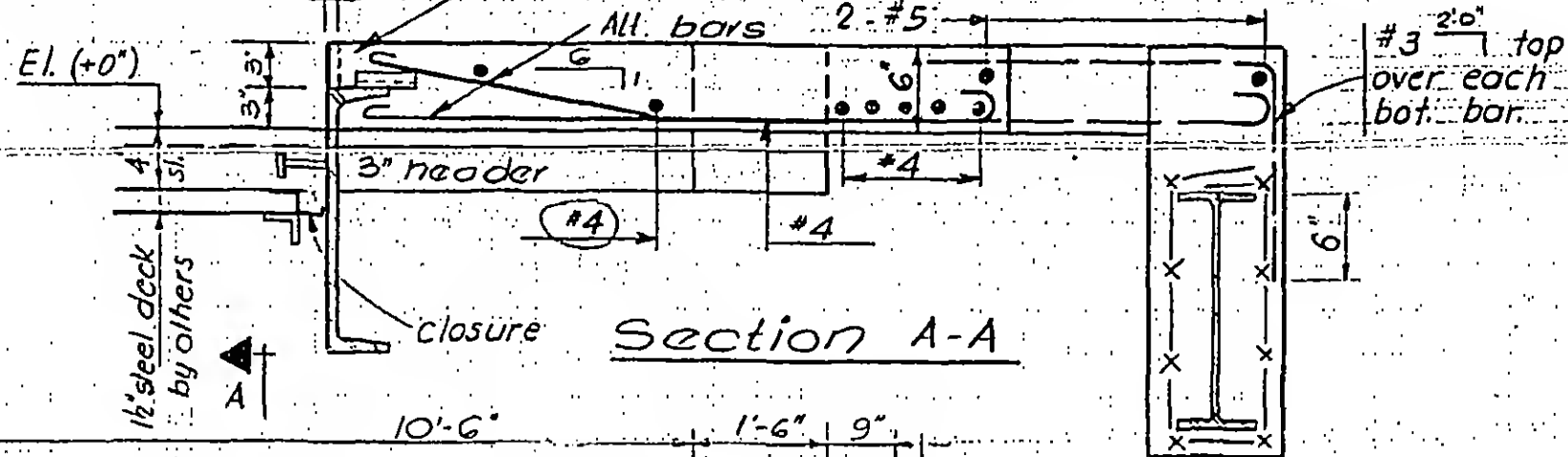
REVISIONS

1-28-69

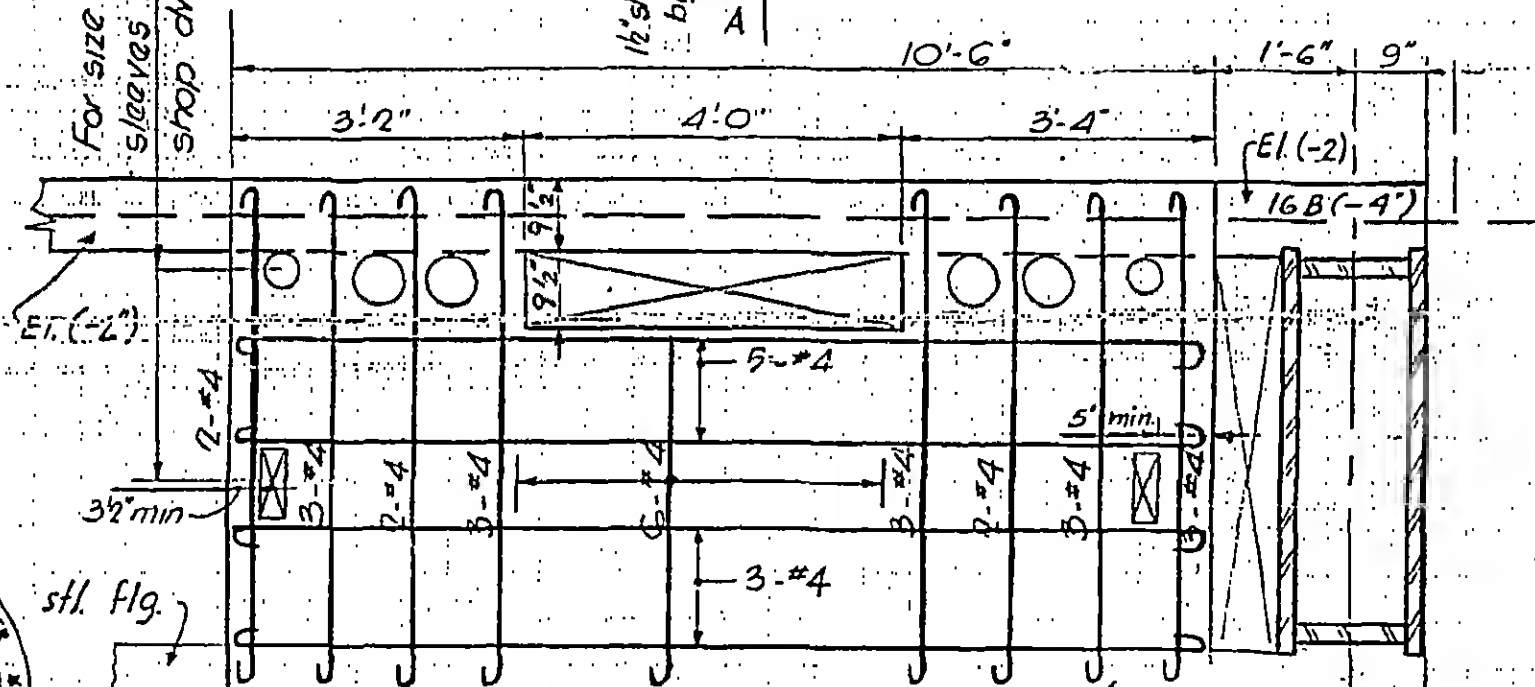
For size and location of slots & sleeves size approved electrical shop dwgs. (Typ.)

For expansion jt see Archt Dets

Top bars shown on Gen. Det. 8-AB1-3 not reqd. over this [



Section A-A



Notes:

1. Provide curb as Archt Dwg. Reinf. as Det. 8-AB1-8



9x3" header WWF as Det. 8-AB2-G

9x3" header WWF as Det. 8-AB2-G

#4 bars Det. 8-AB2-4

8-AB3-30

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE ALTERNATE DETAIL FOR ELECTRICAL CLOSET

DATE 8-10-69

REVISIONS

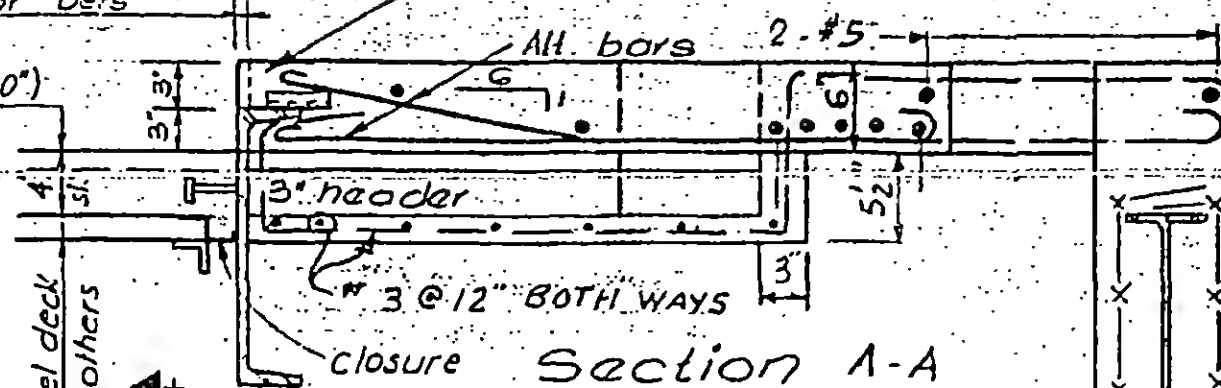
8/19/69

For size and location of slots & sleeves see approved electrical shop dwgs. (typ.)

For expansion jt see Archt Dets

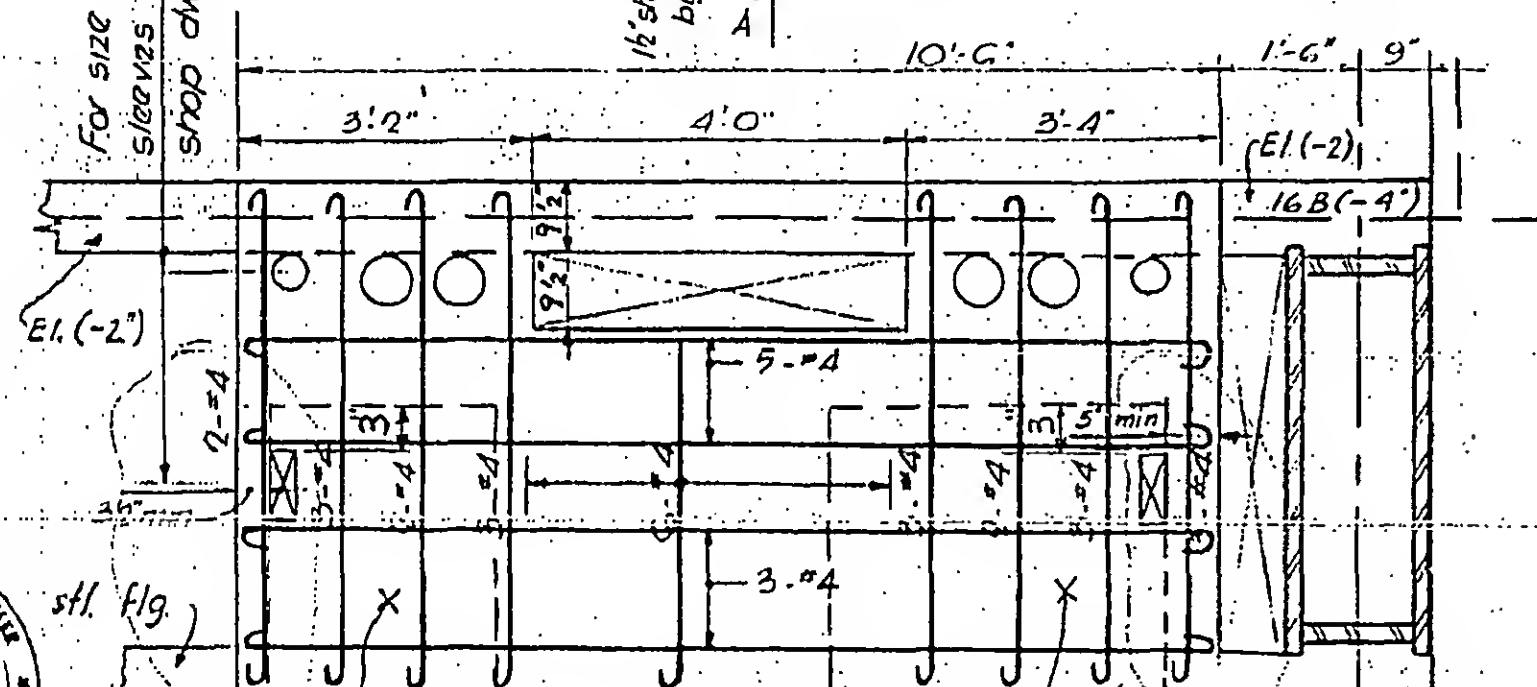
Top bars shown on Gen. Det. 8-AB1-3 not reqd. over this

El. (+0')



#3 2" top over each bot. bar

Section A-A



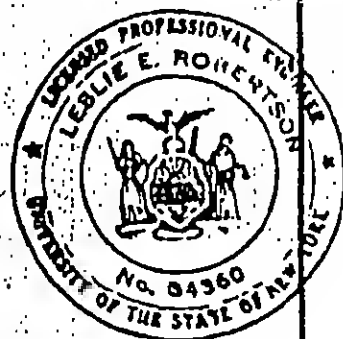
Notes:

1. Provide curb as Archt Dwg. Reinf. as Det. 8-AB1-8.
2. FOR SIZE OF RE-BAR NOT SHOWN SEE 8-AB3-30
3. THIS ALTERNATE DETAIL IS FOR TOWER B & TOWER A AT 21ST FLOOR & ABOVE.

11 1/2" SLAB THIS AREA

11 1/2" SLAB THIS AREA

#4 bars Det. 8-AB2-4



8-AB3-30 A

Structural & Civil Engineers.

DATE 3-1-68

REVISIONS

For size and location of slots and sleeves see approved alacr. shop dwgs (typ.)

If Construction joint is required by Electr. Engr., provide dowels as Det. 8-AB1-4

3 # 5

closure

Section A-A

3. $\frac{2.0''}{\text{over each bot bar}}$

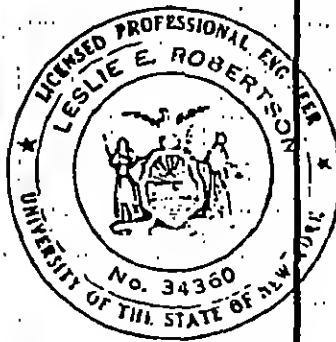
Notes:

1. Curb shown schematically only.
Provide curbs as Archt. Dwg.
Reinf as Detail B-ABI-8

1 (-5 1/2")

4 bars Dat.
— 8-AB2-4

2" header



8-AB3-31.1

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

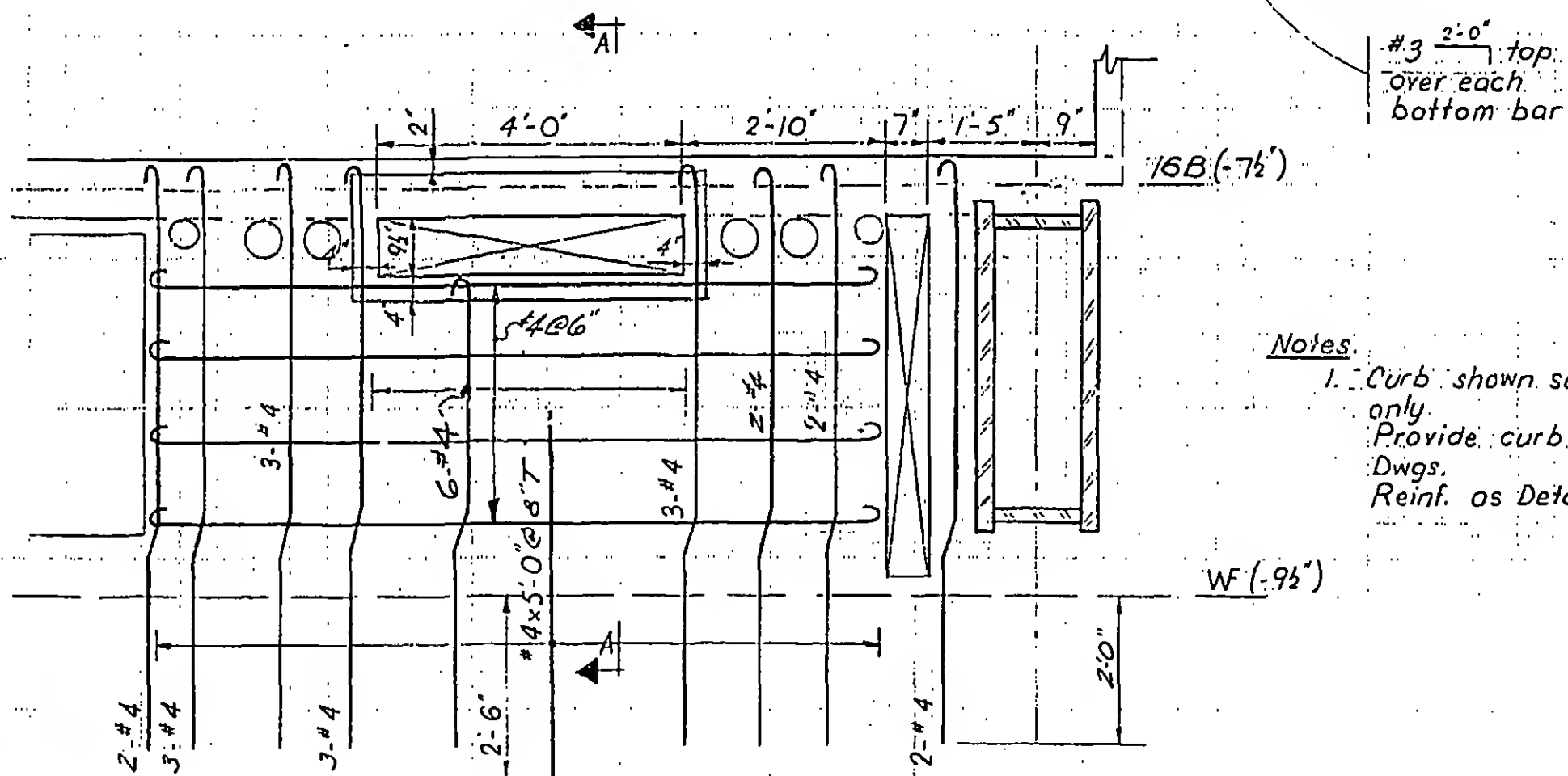
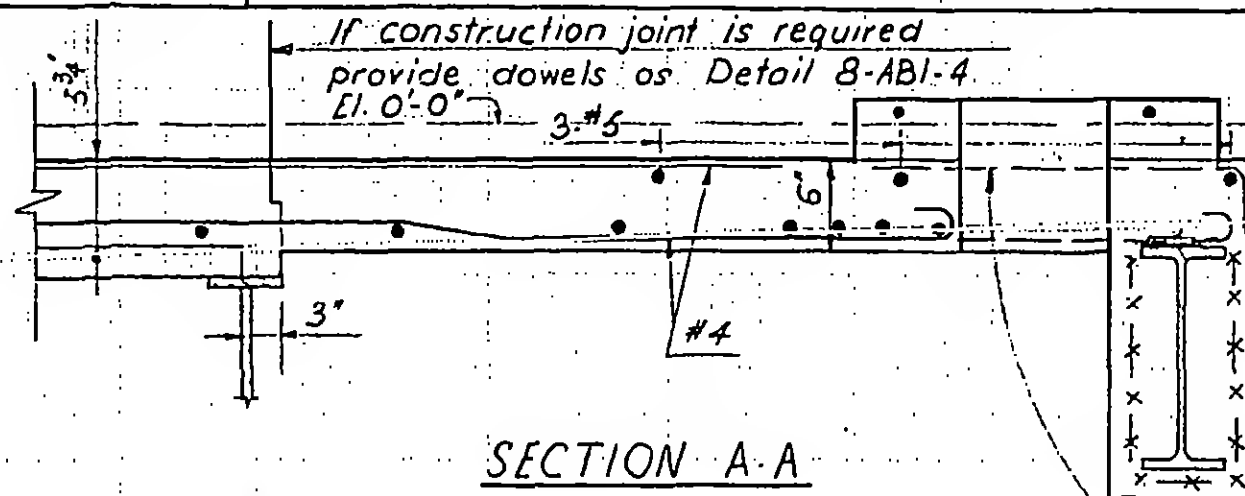
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE ELECTRICAL CLOSET AT FLOOR 41 & 75

DATE 10/24/69

REVISIONS



DESIGNED

N. M.

DRAWN

T. Terrelange

REVIEWED

8-AB3-31.2

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON

Structural & Civil Engineers

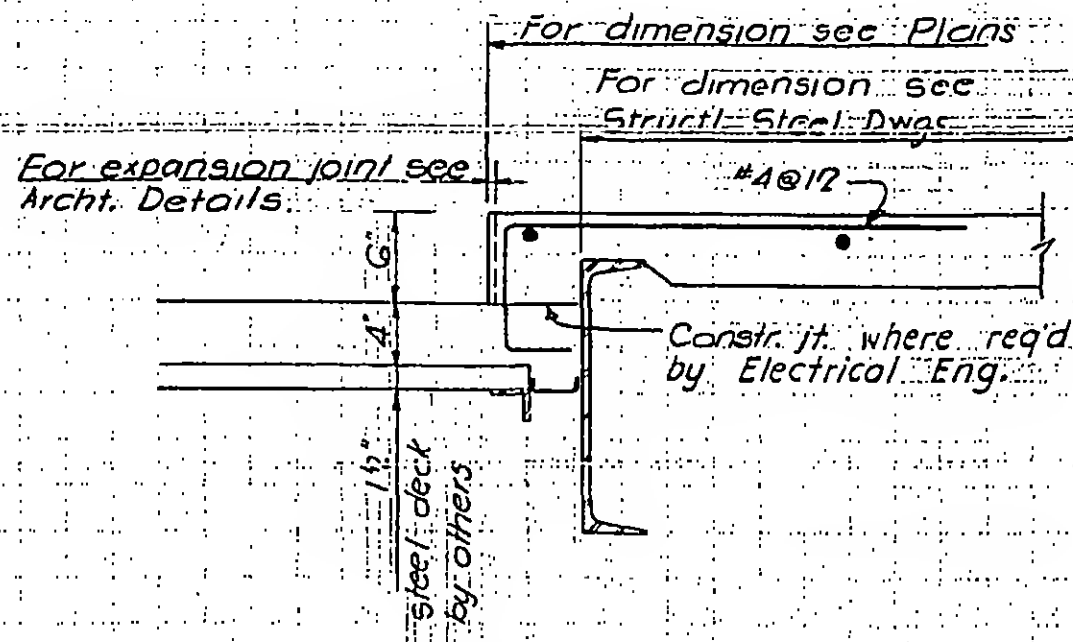
PROJECT THE WORLD TRADE CENTER

TITLE CLOSET AT EL. (+G) EXTENDING BEYOND E

DATE 3-1-68

REVISIONS

10-24-69



Detail 8-AB3-32A (Telephone Closet)

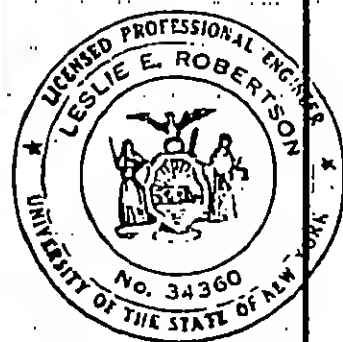
Remainder as Det. 8-AB3-20 thru 22, as applicable

Detail 8-AB3-32B (Telephone Closet)

Remainder as Det. 8-AB3-20 thru 22, as applicable

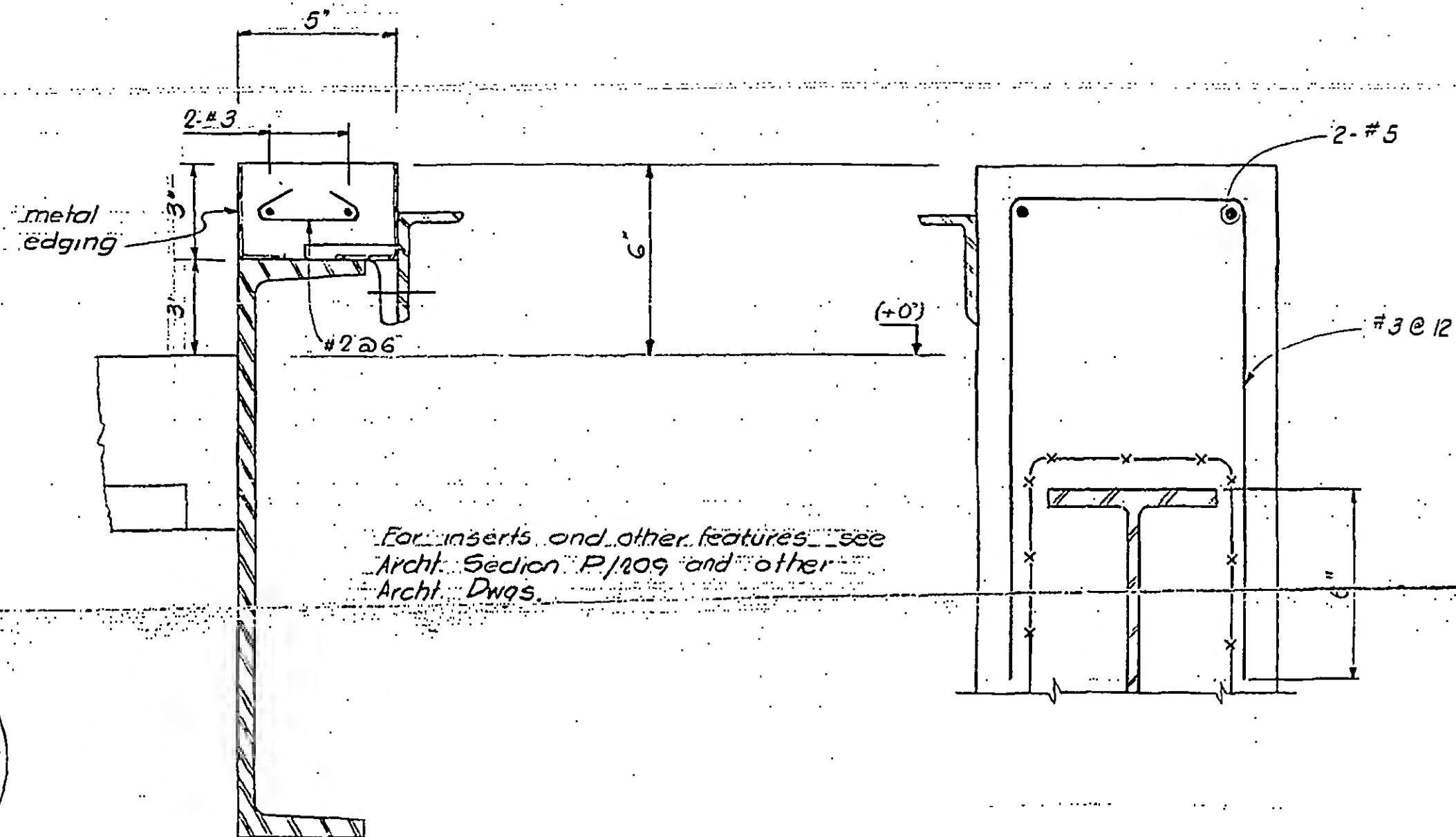
Detail 8-AB3-32C (Electrical Closet)

Remainder as Det. 8-AB3-30

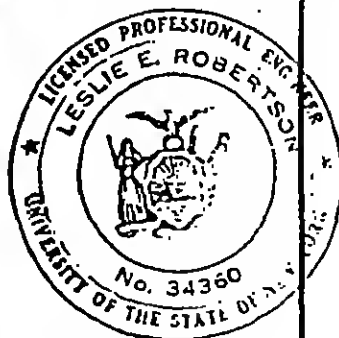


8-AB3-32

REVISIONS



Section A-A



8-AB3-33.1

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THE WORLD TRADE CENTER

TITLE

SUPPORTS FOR GRATING

DATE

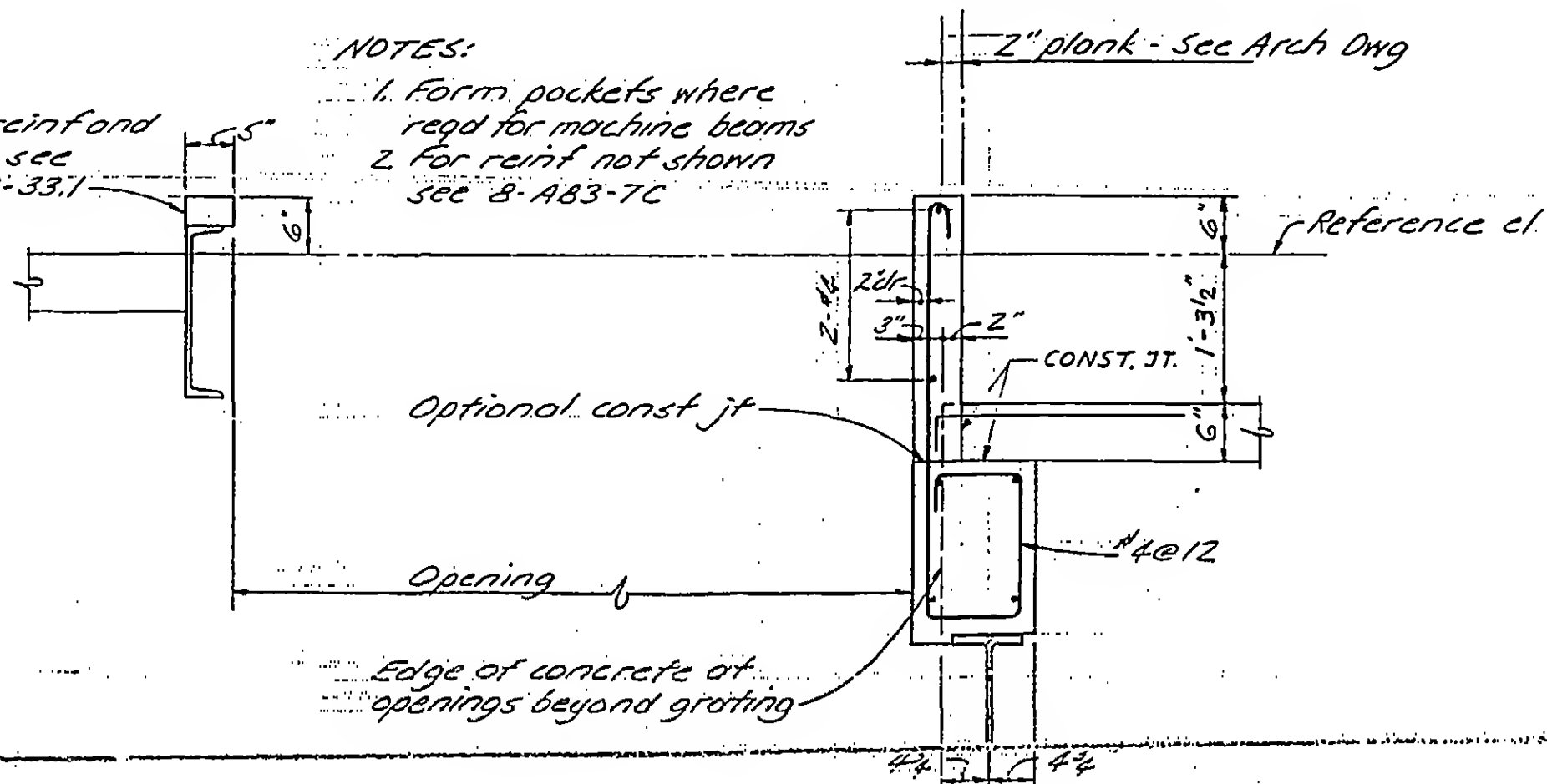
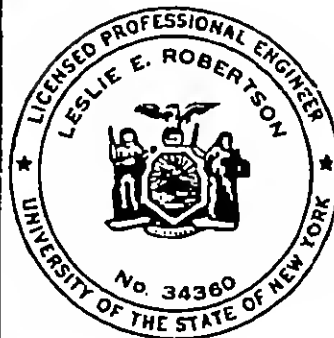
4-23-69

REVISIONS

For reinfond
notes see
8-AB3-33.1

NOTES:

1. Form pockets where
reqd for machine beams
2. For reinf not shown
see 8-AB3-7C

Section B-B

DESIGNED

A.L.A.

DRAWN

J. Adams

REVIEWED

8-AB3-33.2

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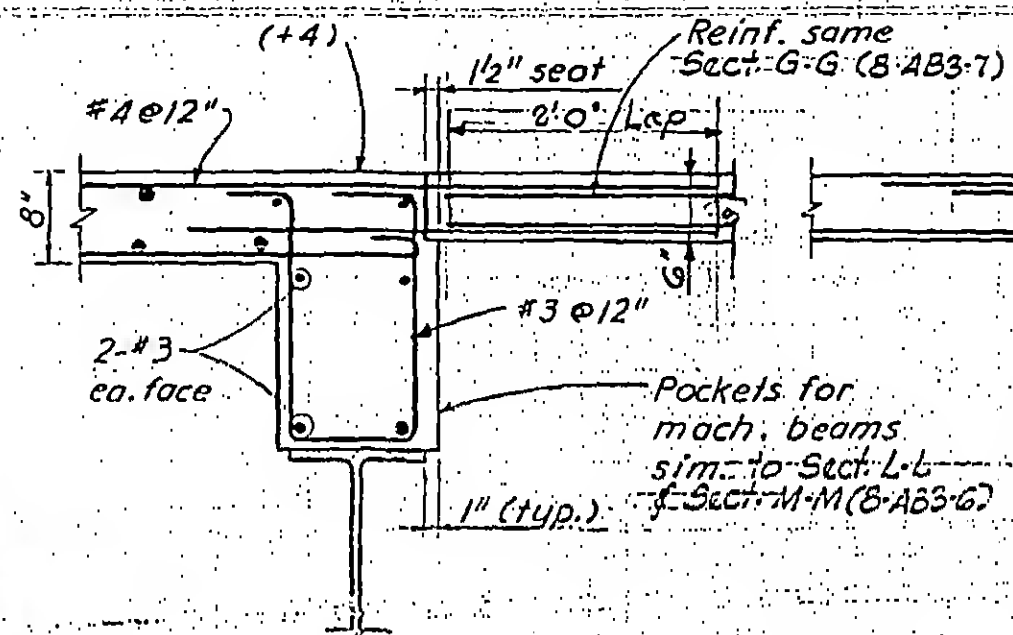
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOOR 110

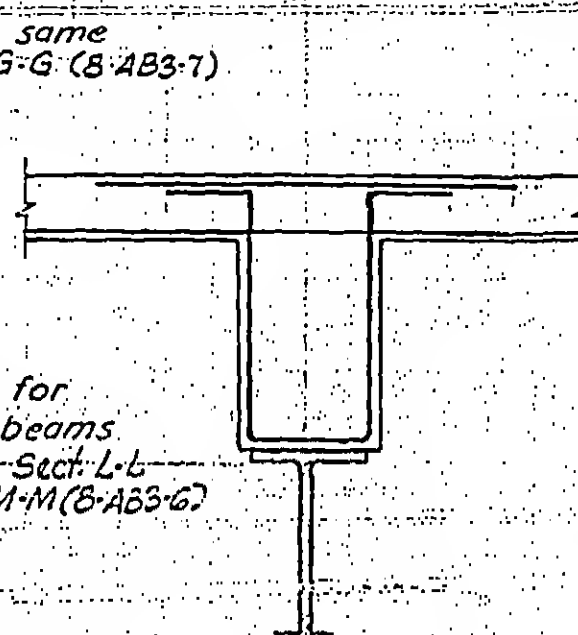
DATE 3-1-68

P.S.

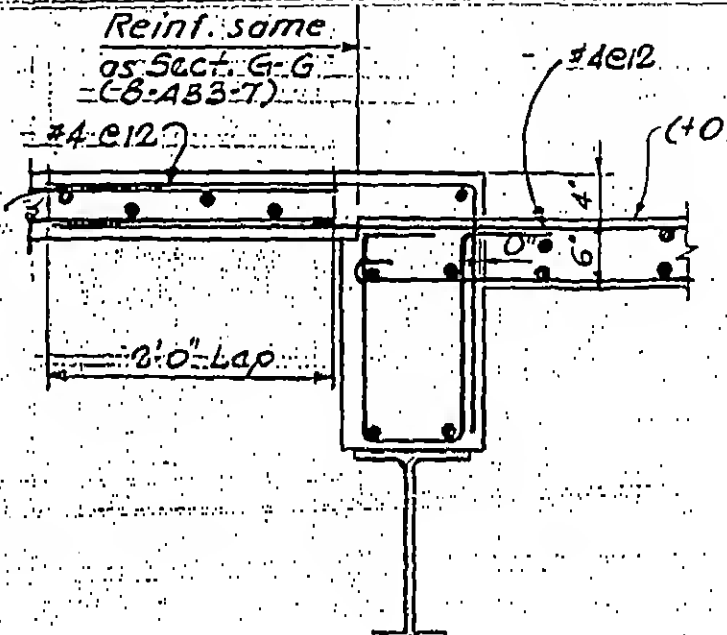
REVISIONS



Section A-A

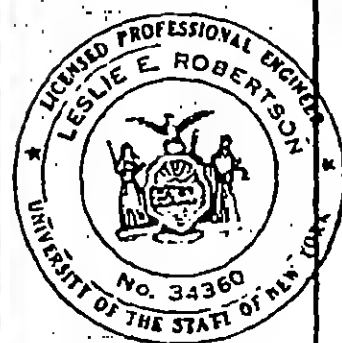


Section B-B



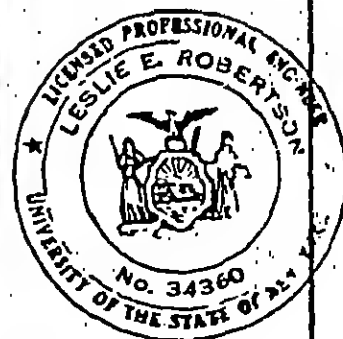
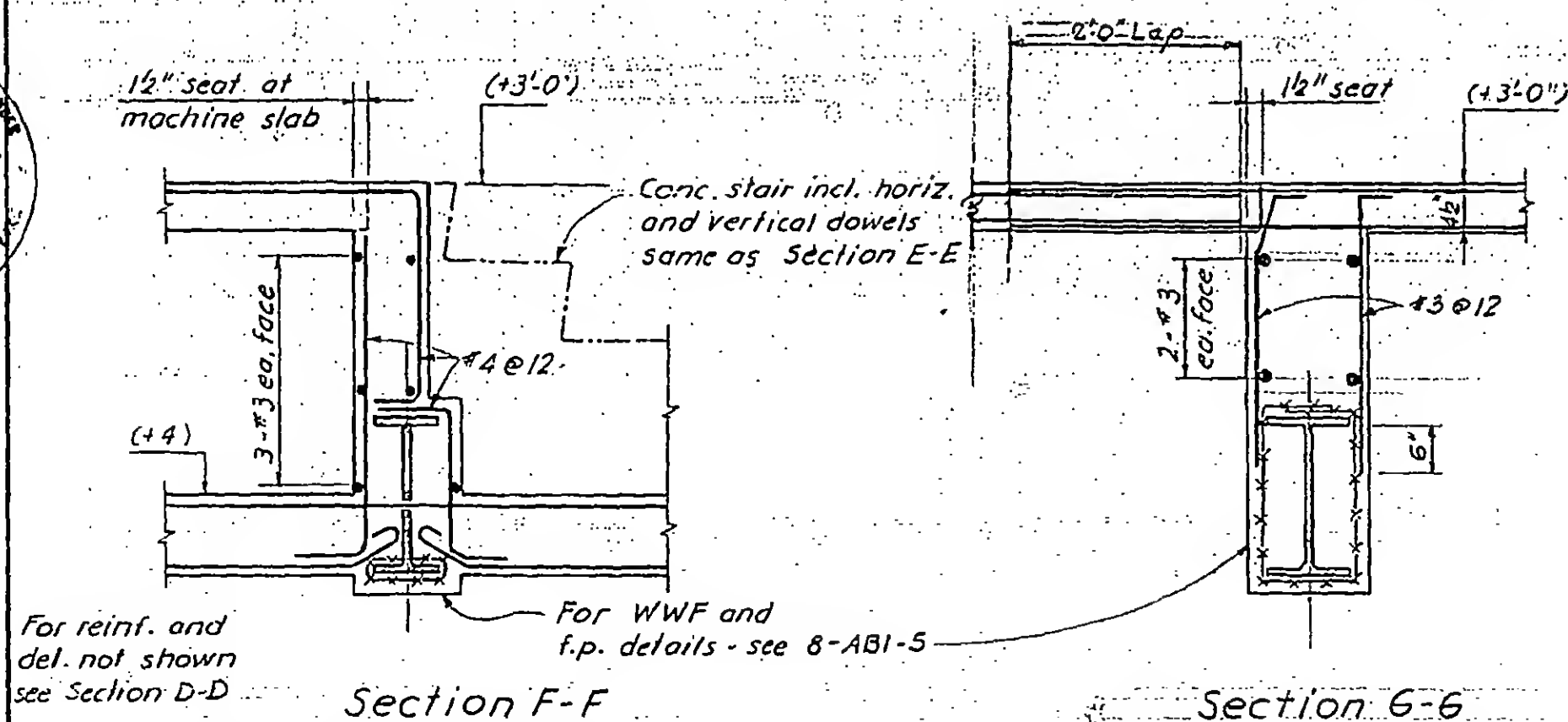
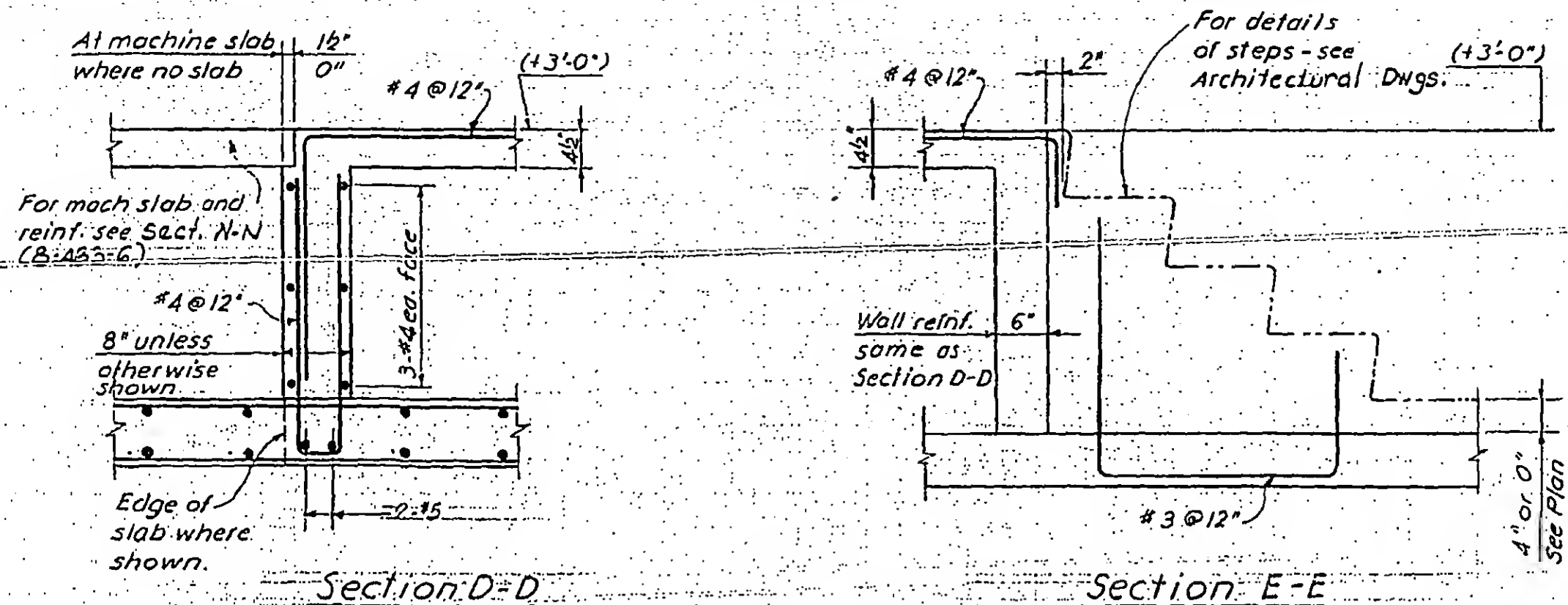
Section C-C

Details not shown sim to A-A Details not shown sim to A-A



8-AB3-34.1

REVISIONS



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THE WORLD TRADE CENTER

TITLE

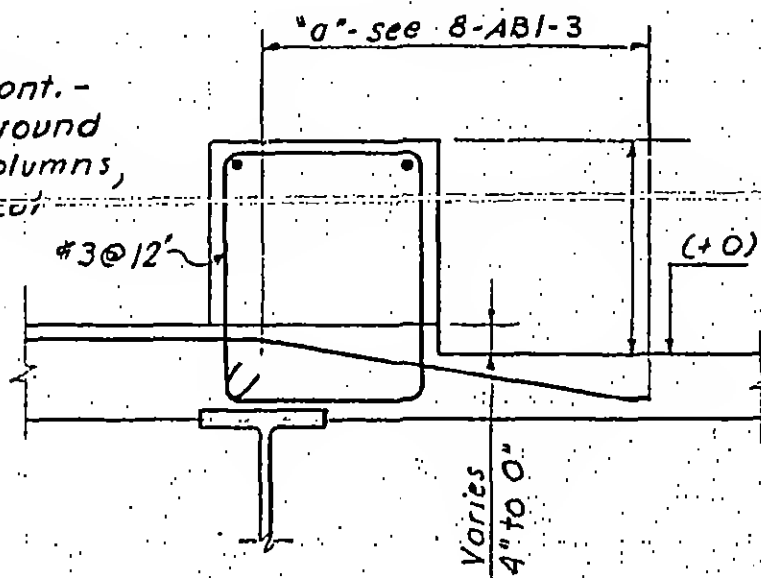
SECTIONS AT FLOOR 110

DATE

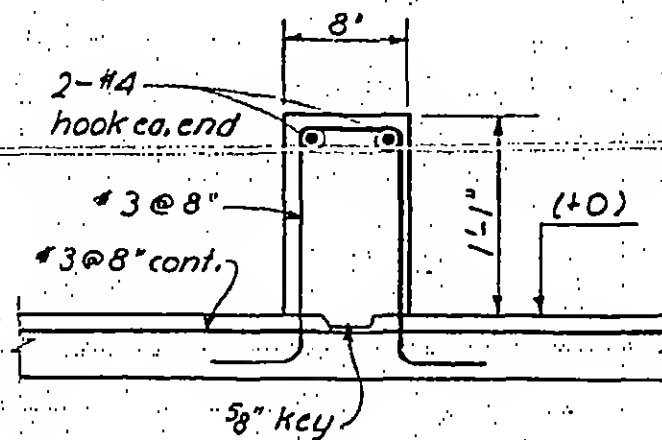
3-1-68

REVISIONS

2-#5 cont. -
bend around
steel columns,
do not cut



Section H-H



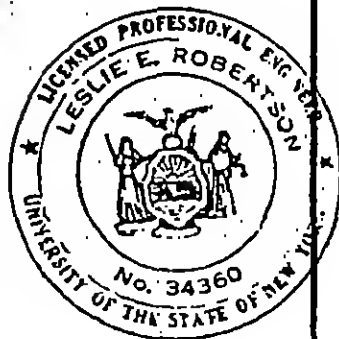
Section J-J

Note:

For length of curbs
and for details - see
approved shop dwgs
of Window Washer
Tracks.

Note:

For anchors and other items
see Architectural Drawings.



8-AB3-34.3

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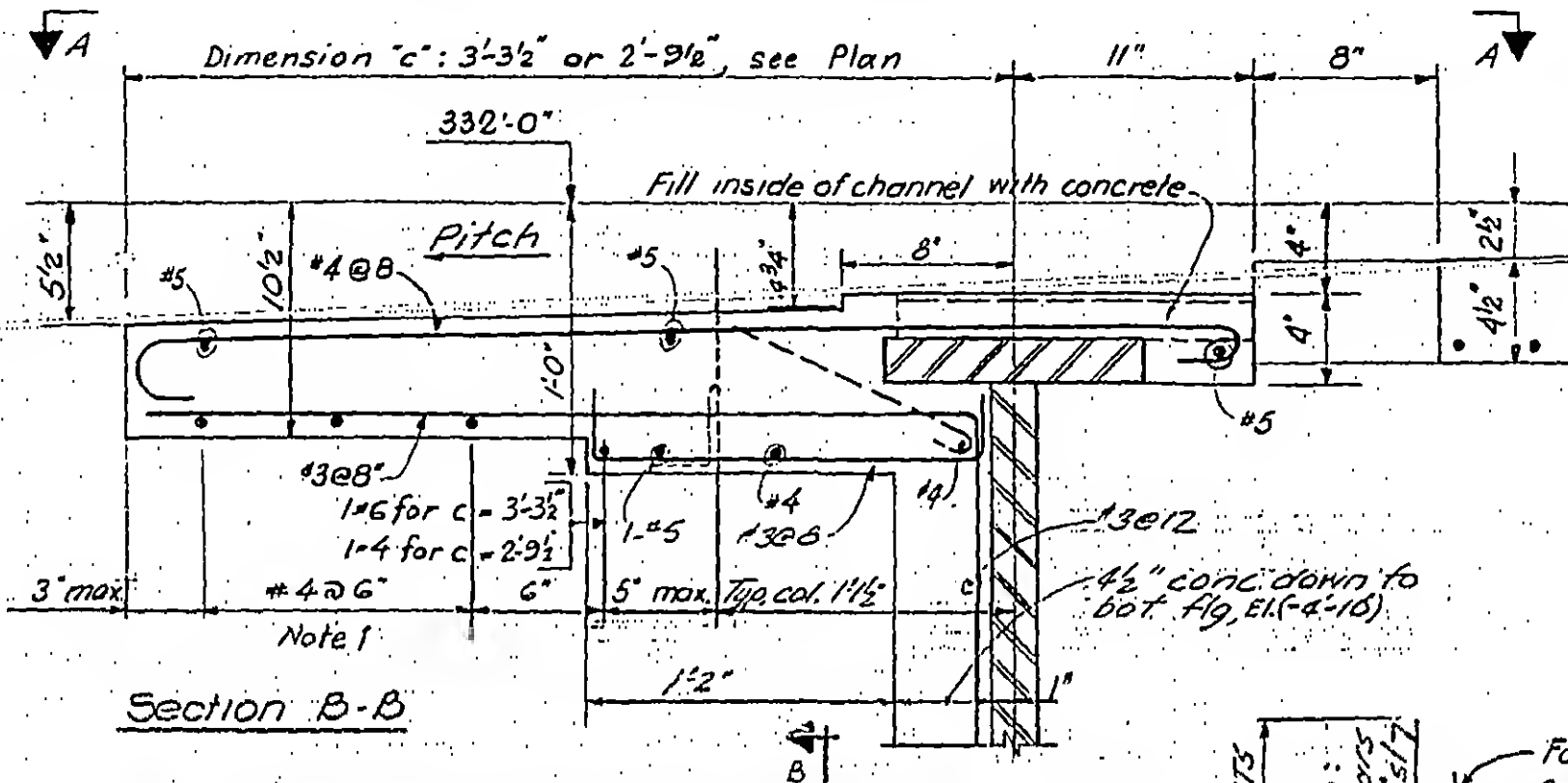
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOOR 2

DATE 3-1-68

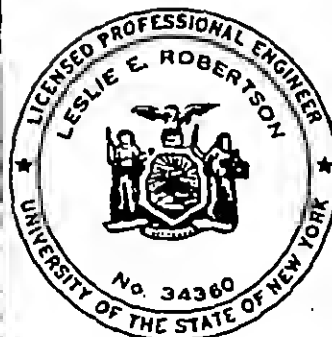
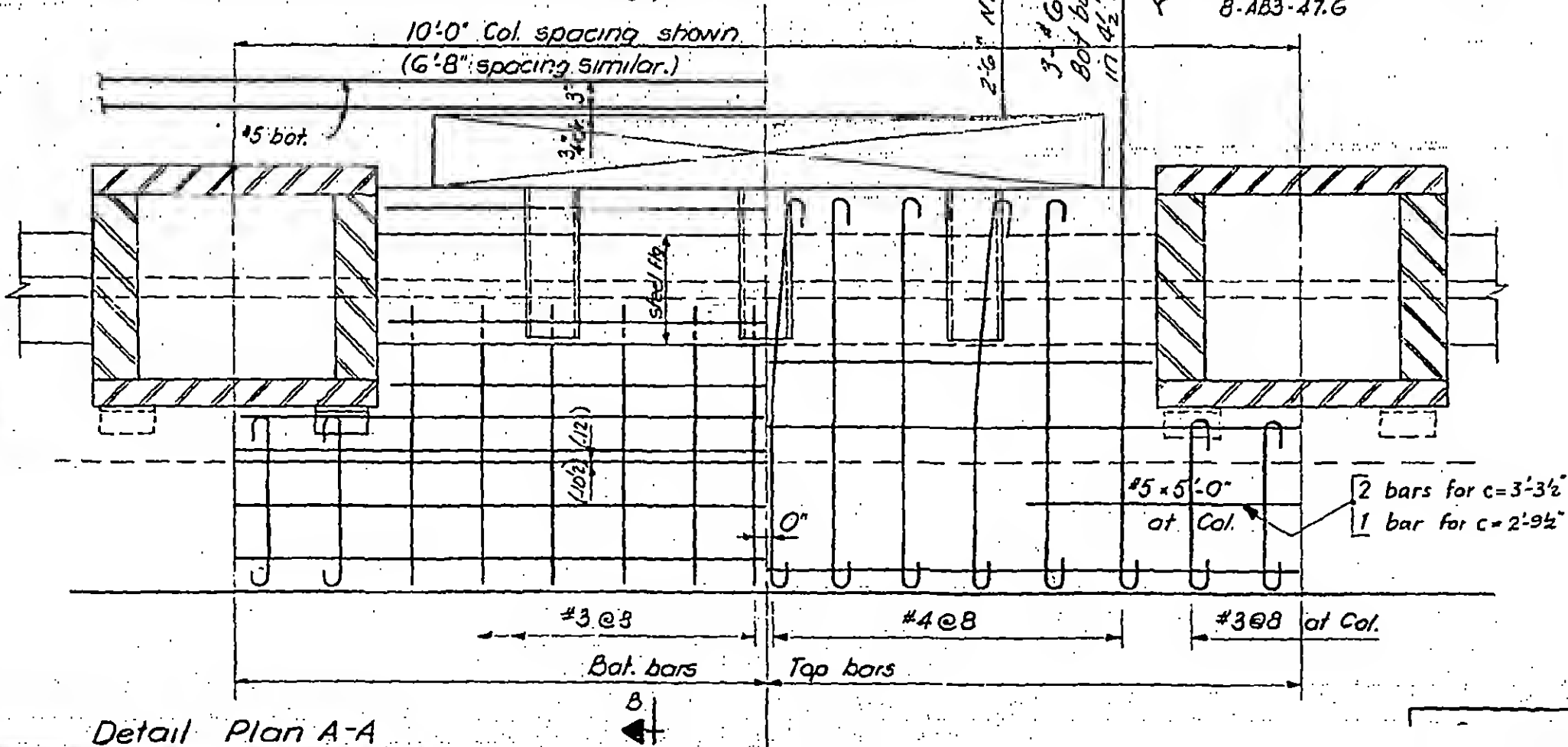
REVISIONS

5-31-68
General Rev.
3-19-69



Notes:

1. Compute number of bars from dimensions, number is not necessarily as shown.
2. Hooks may be 90° sld. hooks, and/or parallel to spandrel beam (not as shown.)



DESIGNED

A.L.A.

DRAWN

G.T. Hellebranth

REVIEWED

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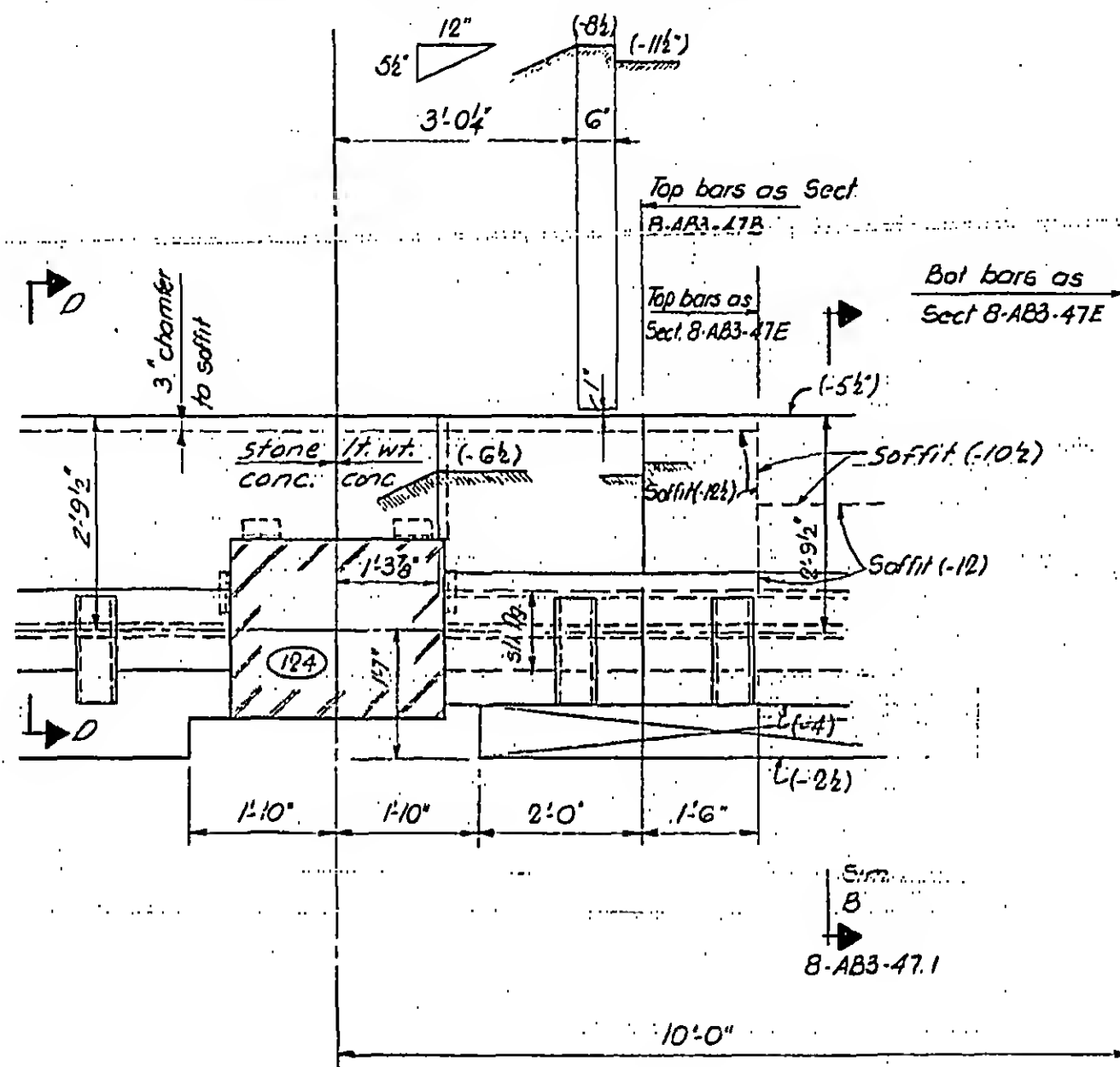
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOOR 2

DATE 3-19-69

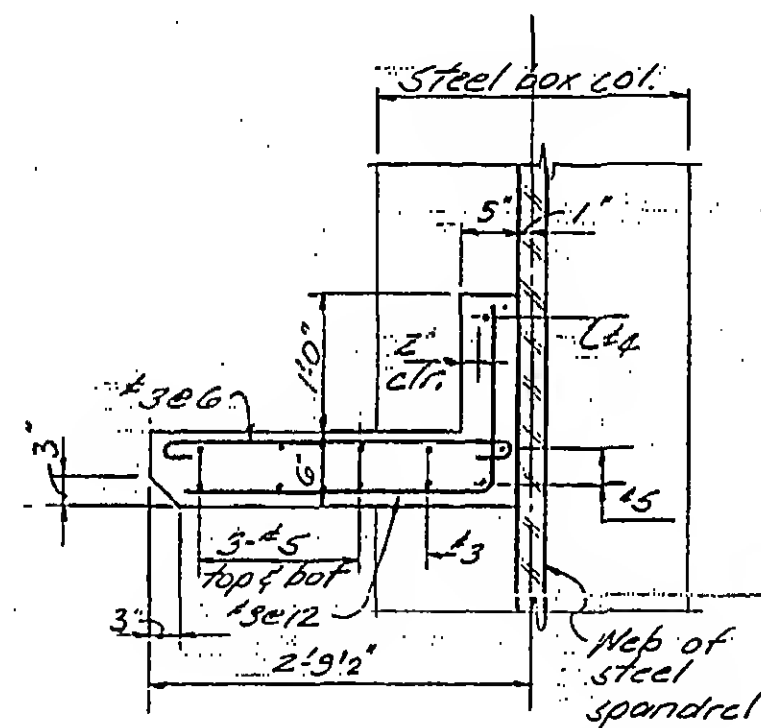
REVISIONS



Detail Plan C

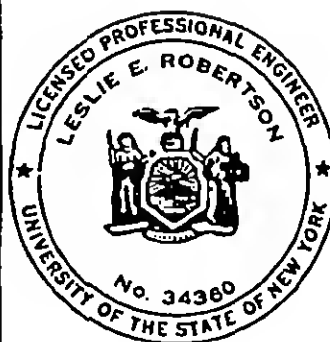
Column 124 shown

Column 336 opp. hand



Section D-D

Note: Any bars cut short due
to flange of steel spandrel
shall be hooked



DESIGNED

A.L.A.

DRAWN

G.T. Hellebranth

REVIEWED

8-AB3-47.2

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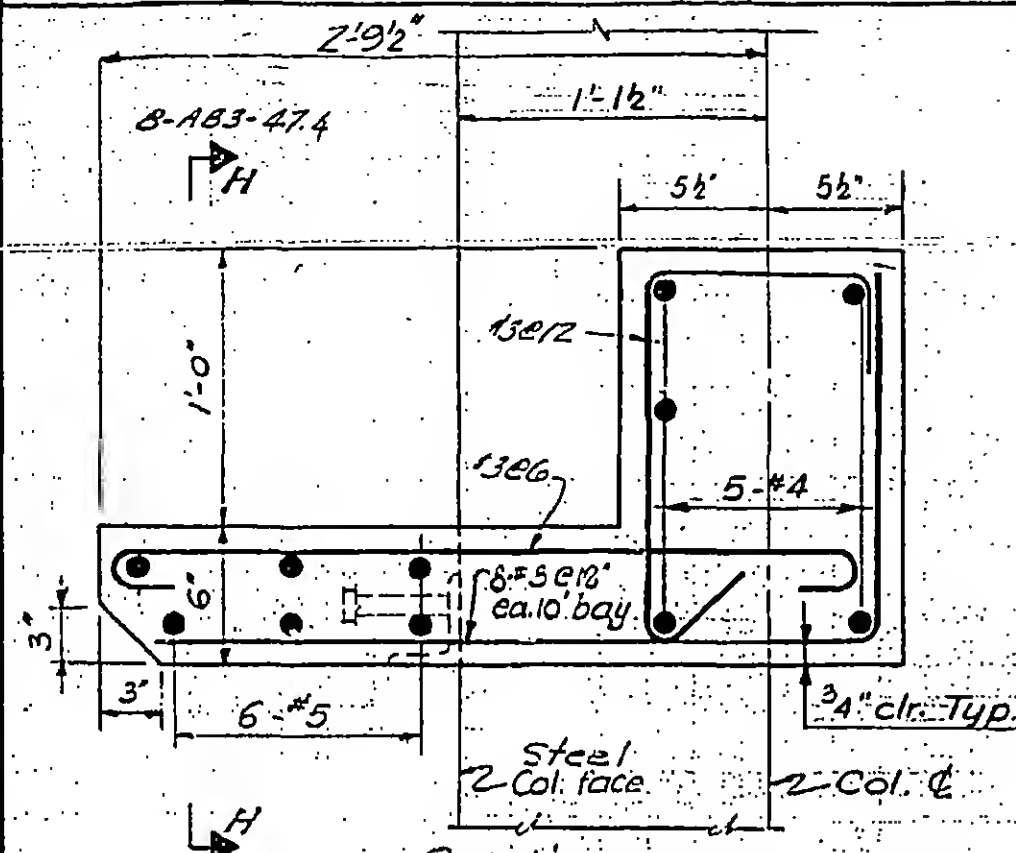
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOOR 2

DATE 3-1-68

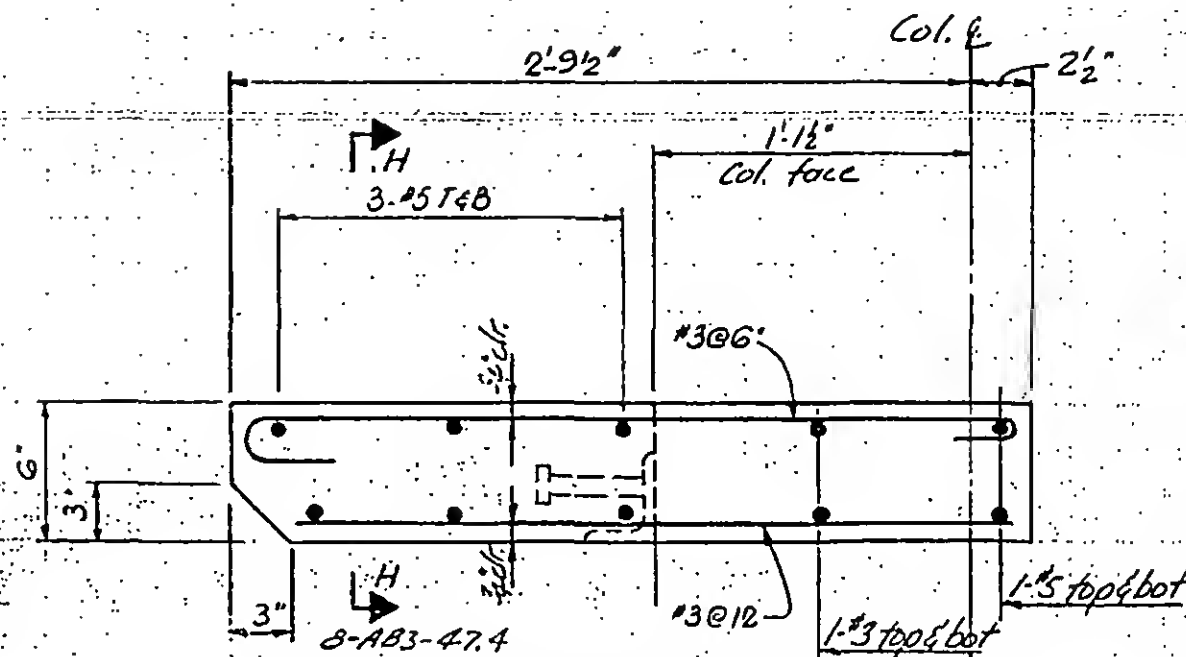
REVISIONS

5/31/68
General Rev.
3-19-69

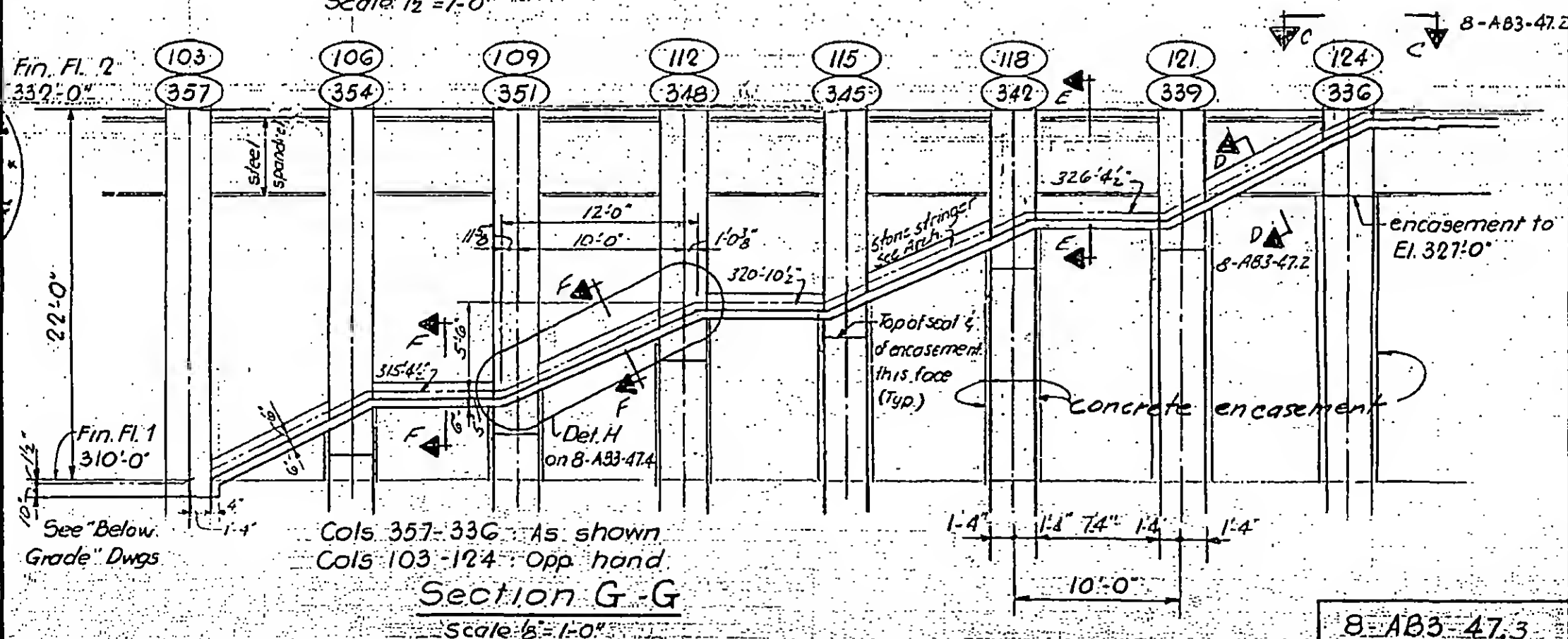


Section F-F

Scale: 1/2" = 1'-0"

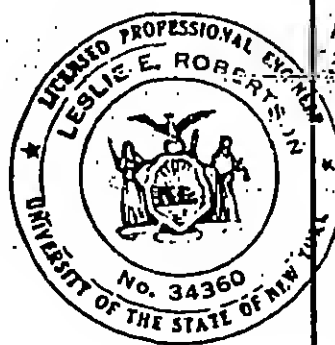


Section E-E



Section G-G

Scale: 1/2" = 1'-0"



8-AB3-47.3

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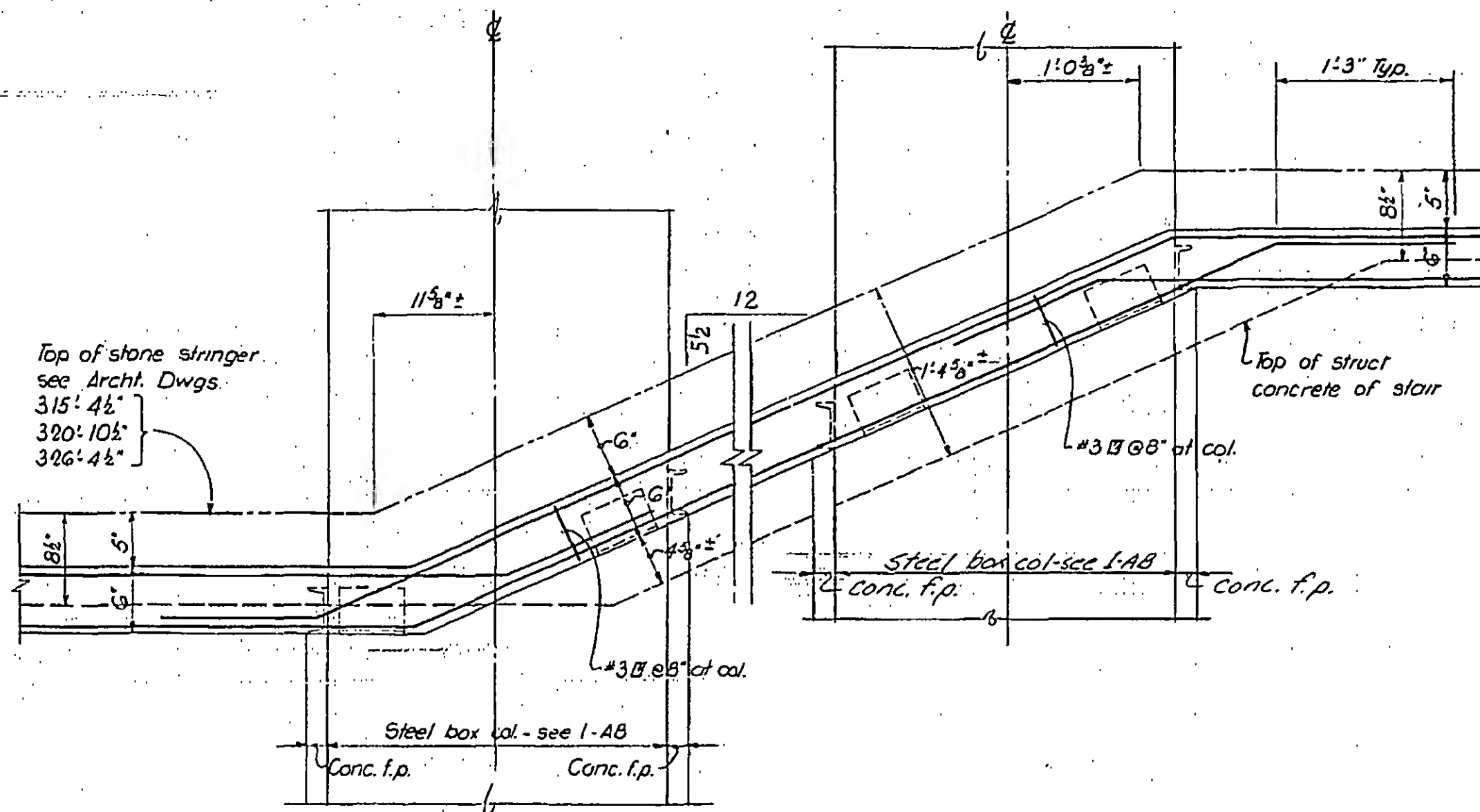
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

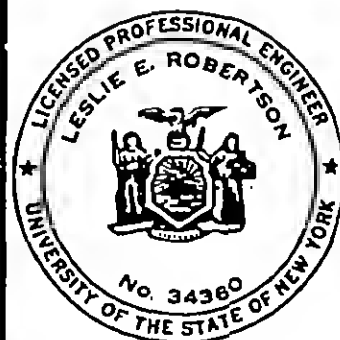
TITLE SECTIONS AT FLOOR 2

DATE 3-19-69

REVISIONS



Detail H

DESIGNED
A.L.A.

DRAWN

G.T. Hellebranth

REVIEWED

B-AB3-47.4

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PROJECT THE WORLD TRADE CENTER

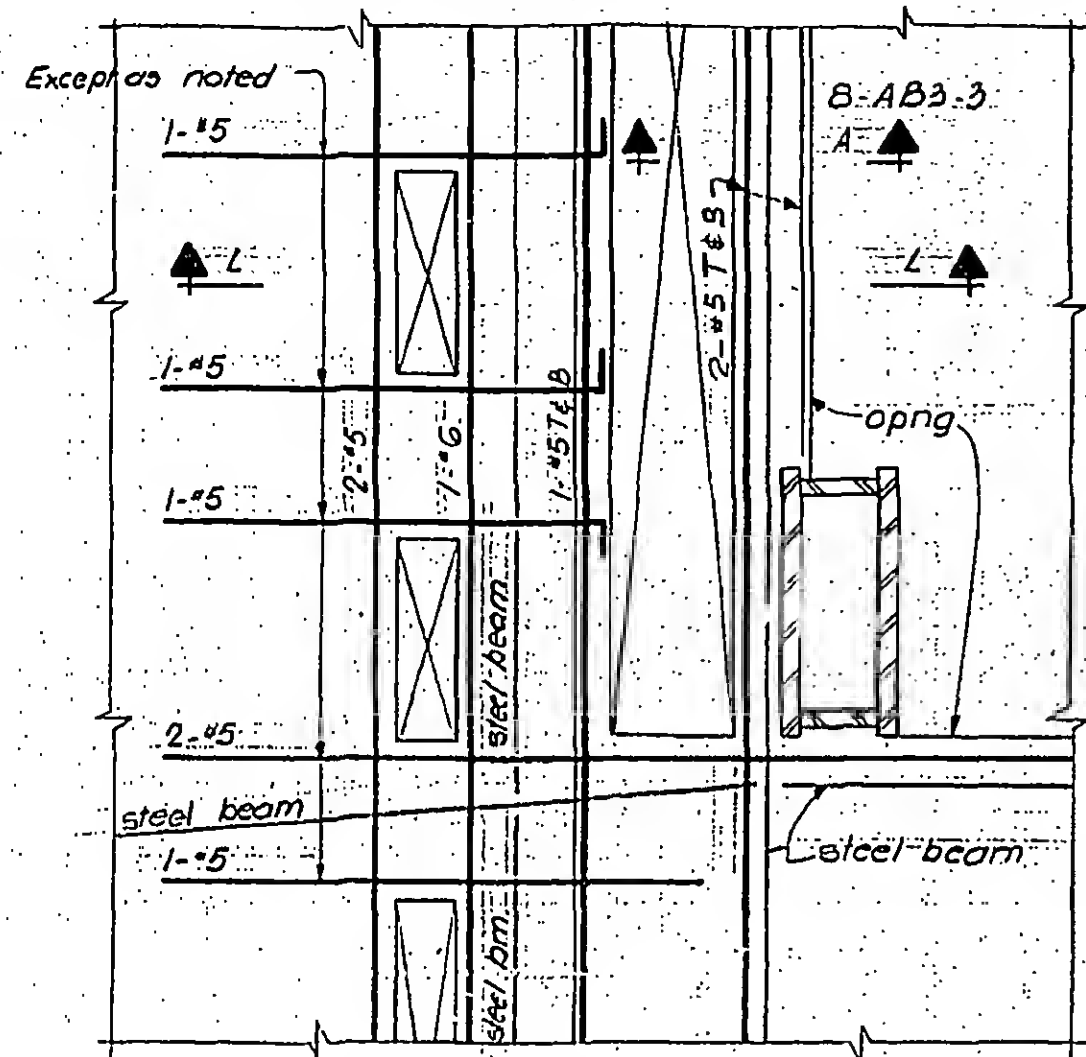
TITLE SECTIONS AT FLOOR 2

DATE 3-1-68

REVISIONS

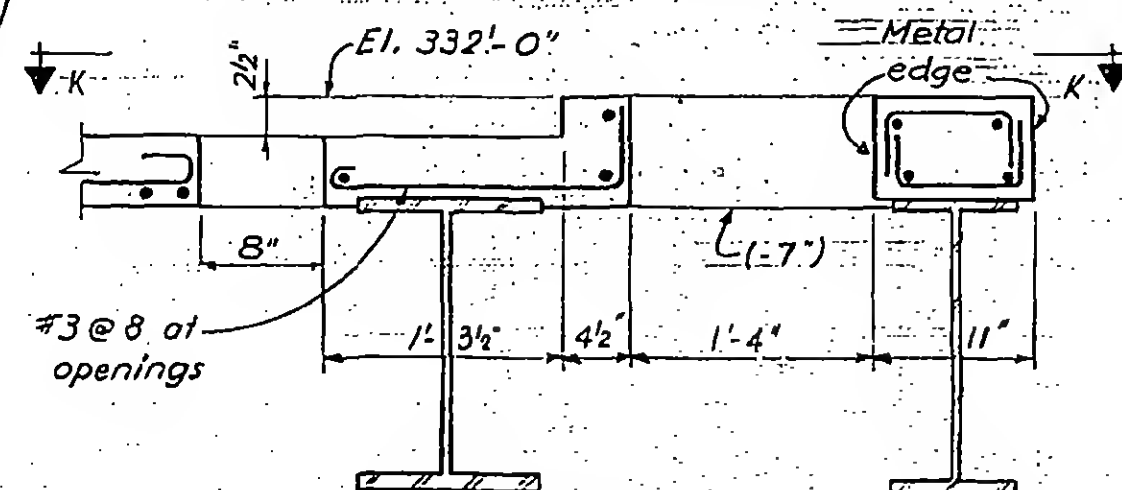
1-28-69

3-19-69

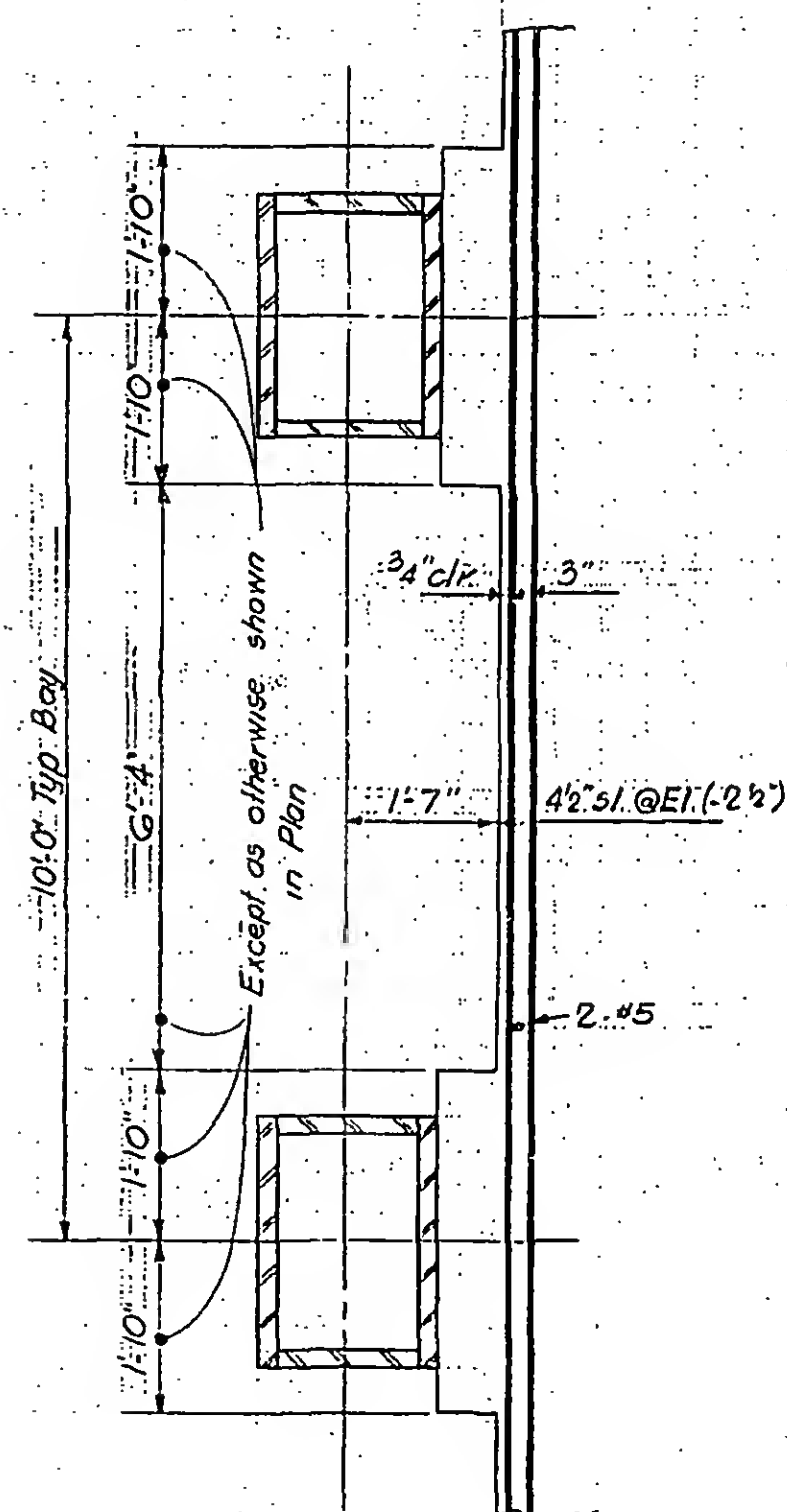


Section K-K

Typ. Sectional Plan at End Walls of Core



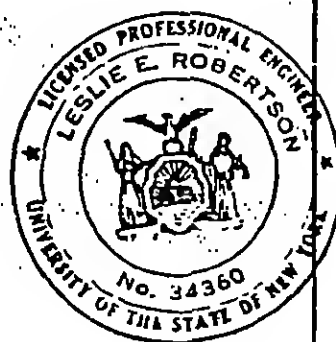
Section L-L



Detail J

Typ. Plan at West Wall of Tower A
& South Wall of Tower B

8-AB3-47.5



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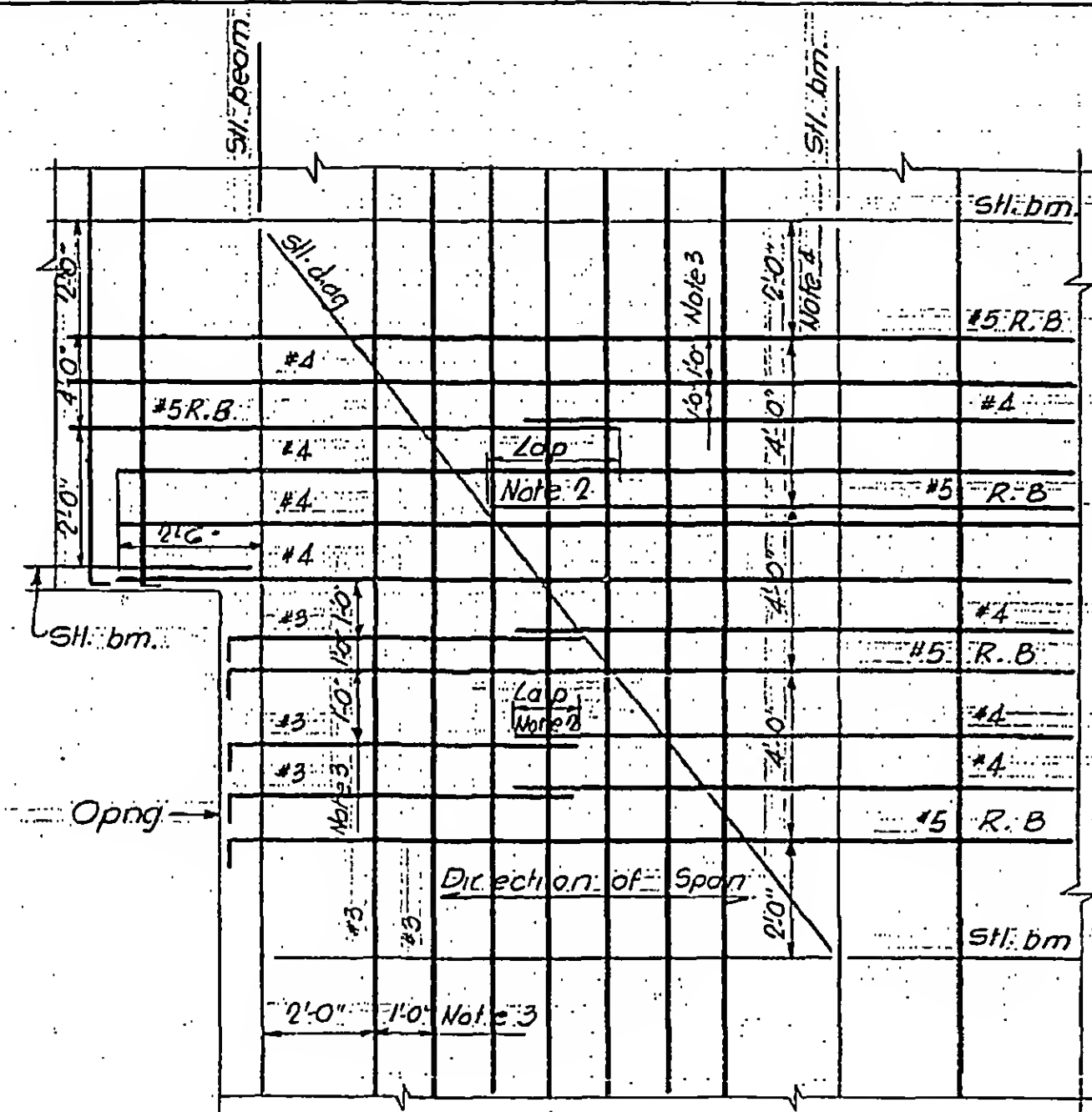
PROJECT THE WORLD TRADE CENTER

TITLE DETAILS AT FLOOR 2

DATE 3-1-68

REVISIONS

3-19-69

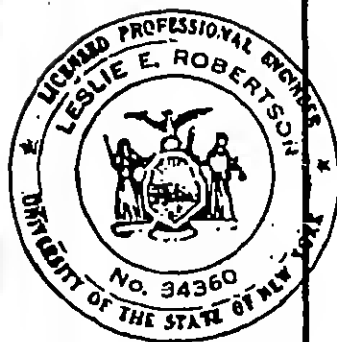


Notes:

1. Bot. bars as Det. 8-AB4-21
2. Splice top bars by lapping at midspan. Min lap as Det. 8-AB1-3
3. Spacings shown are the greatest allowed
4. A band of reinf. bars parallel to a beam may end 2'-0" away from the beam.
5. Place added bars shown in Plan midway bet. typical bars. Length of added bars as Det. 8-AB1-3
6. Sequence of placement:
 - a. #5 Raiser Bars
 - b. #3 @ 12" normal to span
 - c. Bars @ 12" in direction of span and added bars, if any.

Detail M

Typical Top Reinf.



8-AB3-47.6

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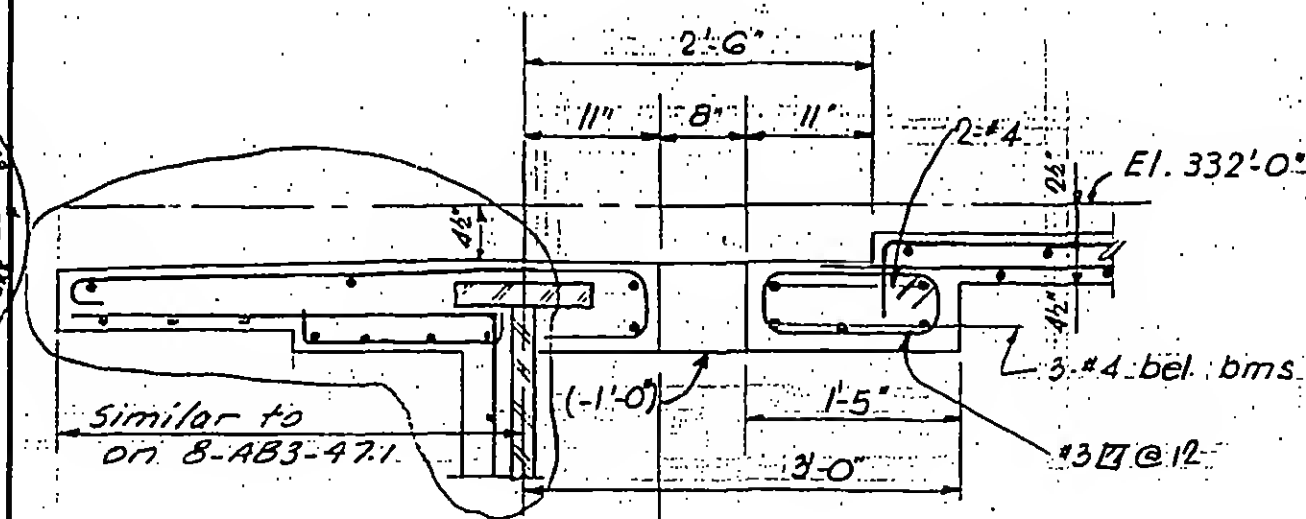
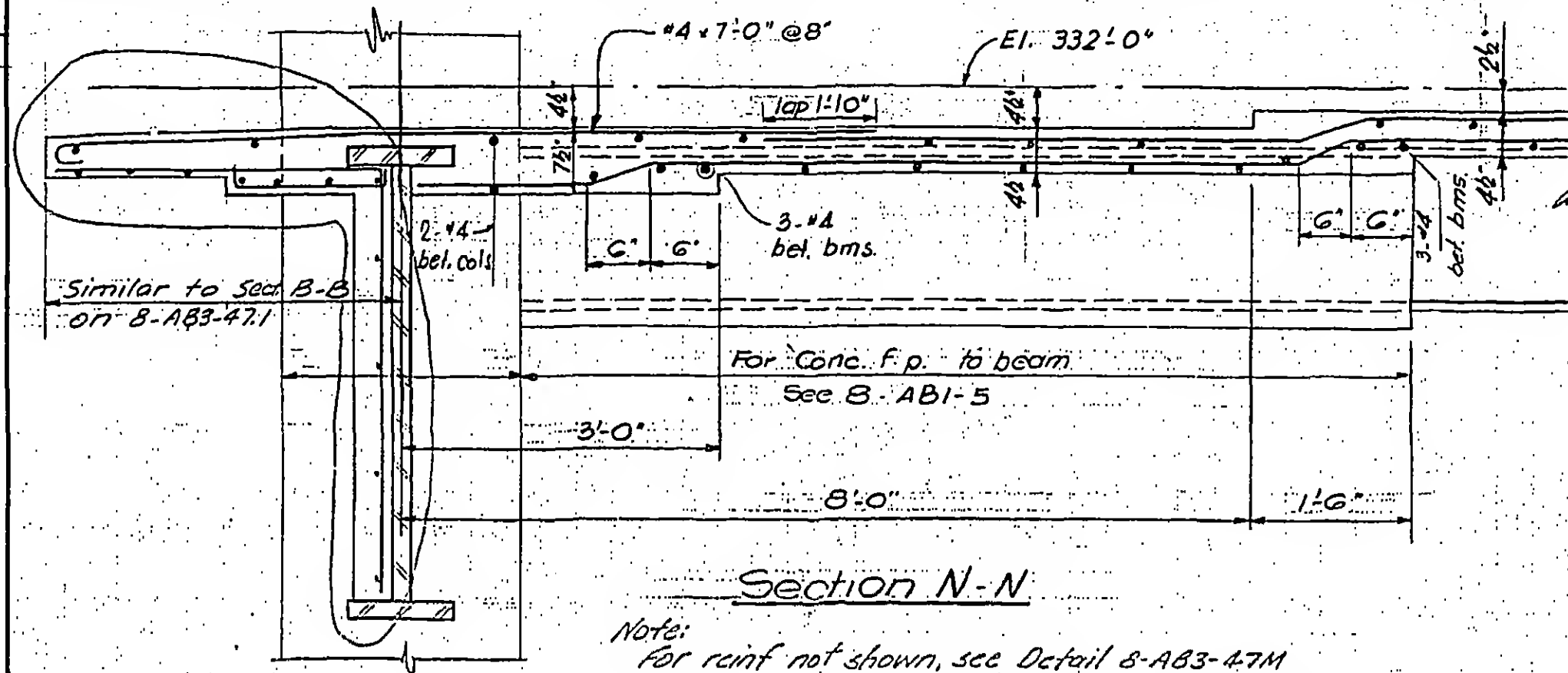
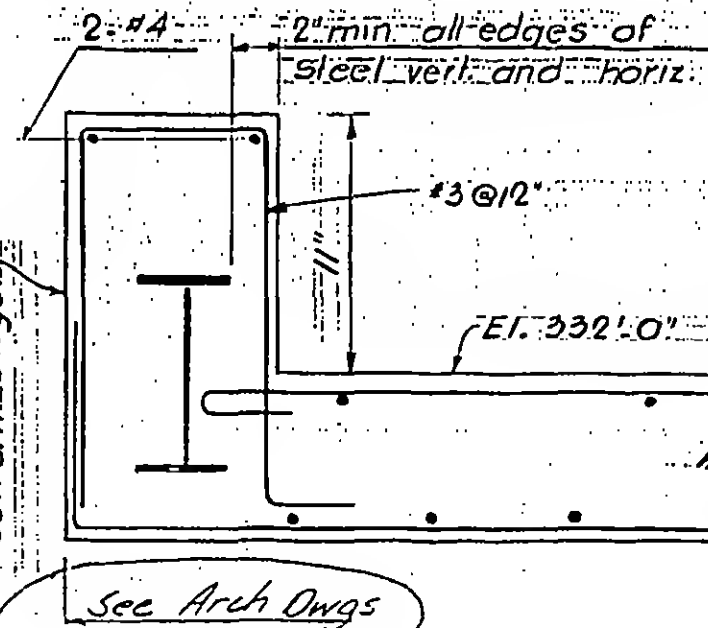
PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS AT FLOOR 2

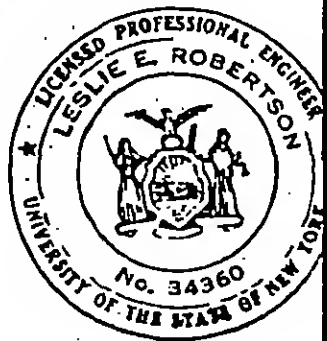
DATE 3-1-68

REVISIONS

3-19-69

For inserts and other features
See Arch. Dwgs.

8-AB3-47.7



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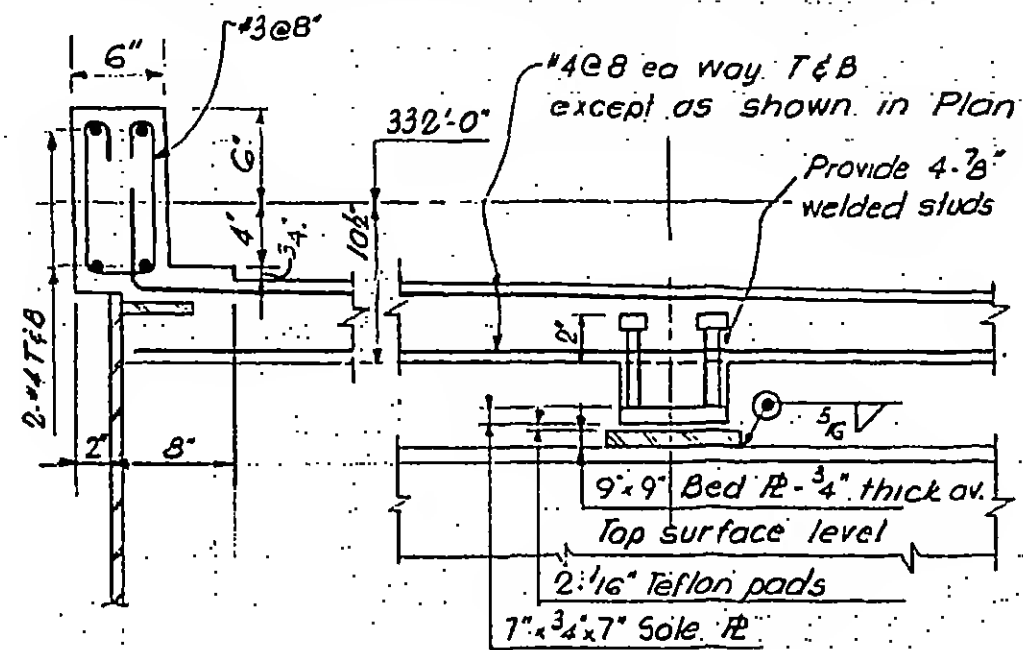
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TITLE SECTIONS AT FLOOR 2

DATE 3-19-69

REVISIONS

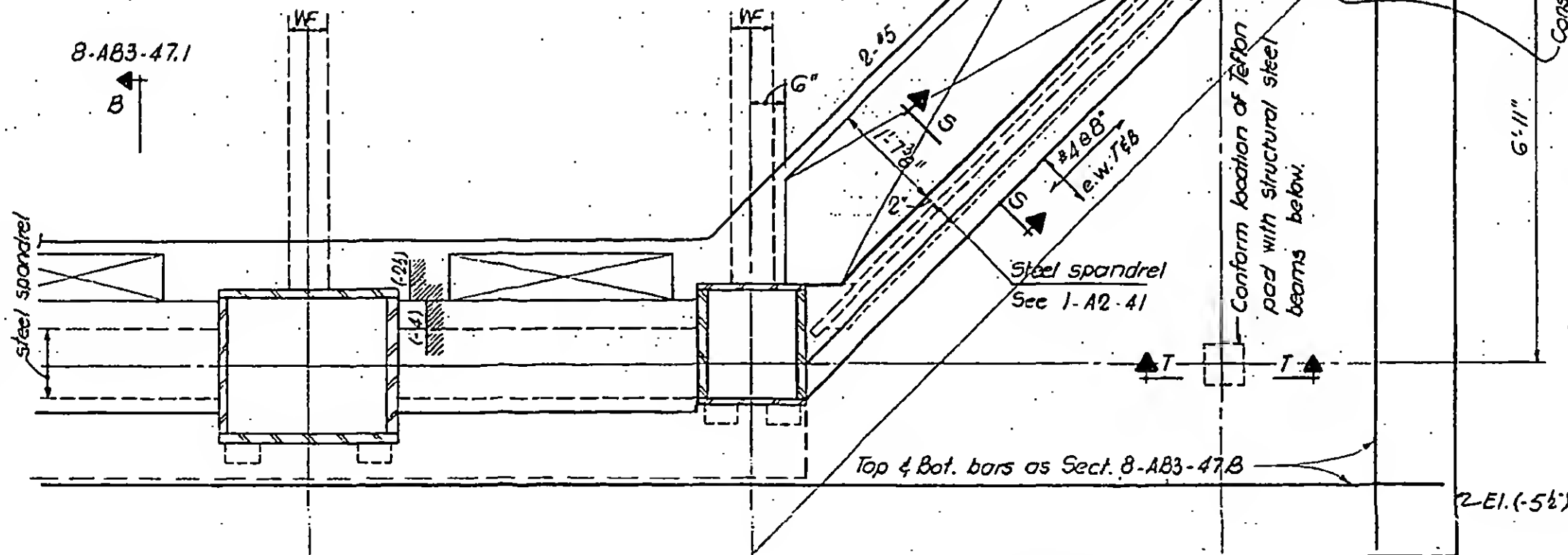


Section S-S

Section T-T

8-AB3-47.1

B



Top & Bot. bars as Sect. 8-AB3-47.8

2-El. (-5 1/2')

Detail Plan R

8-AB3-47.8



DESIGNED A.L.A.

DRAWN

G.T.H.

REVIEWED

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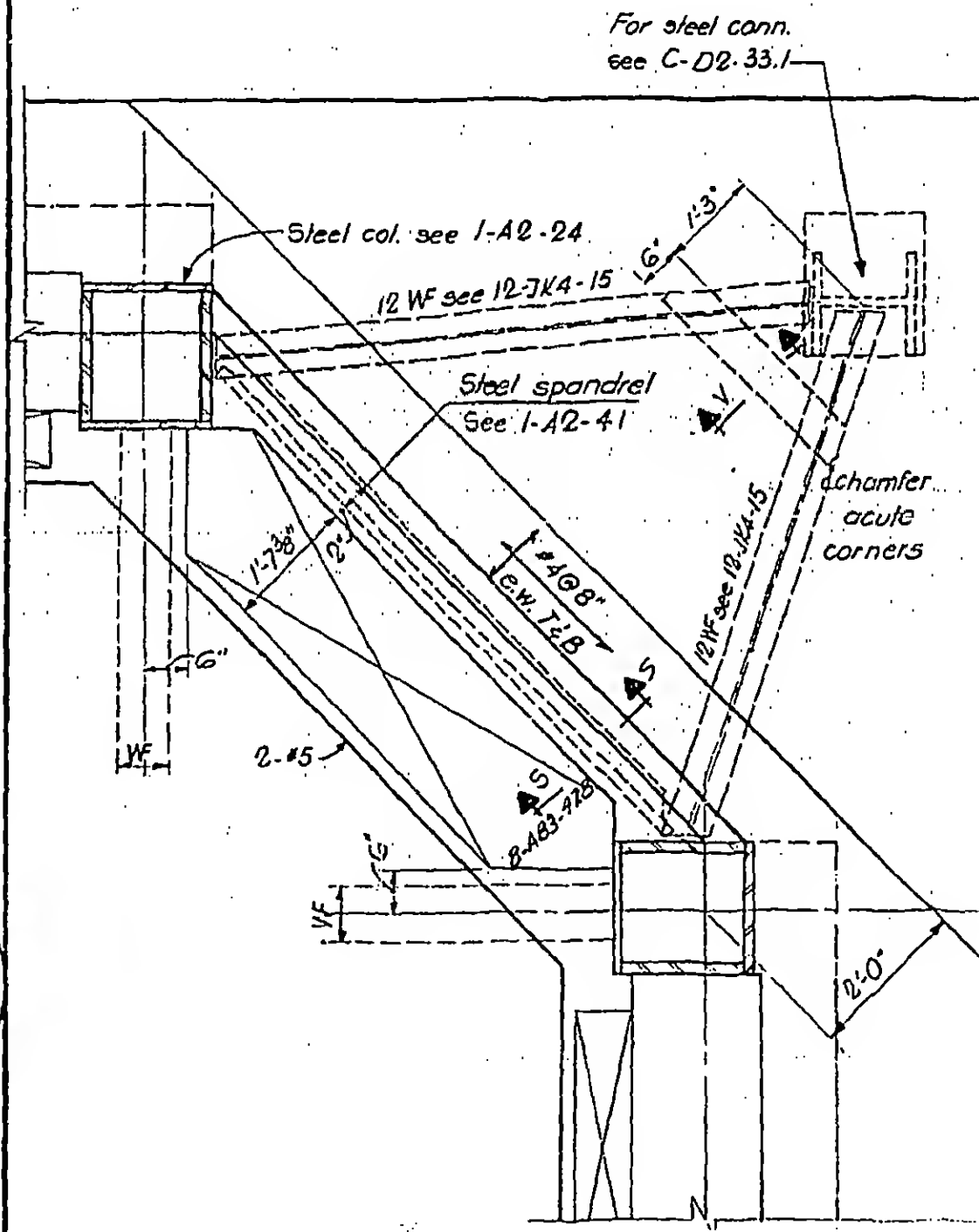
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PROJECT THE WORLD TRADE CENTER

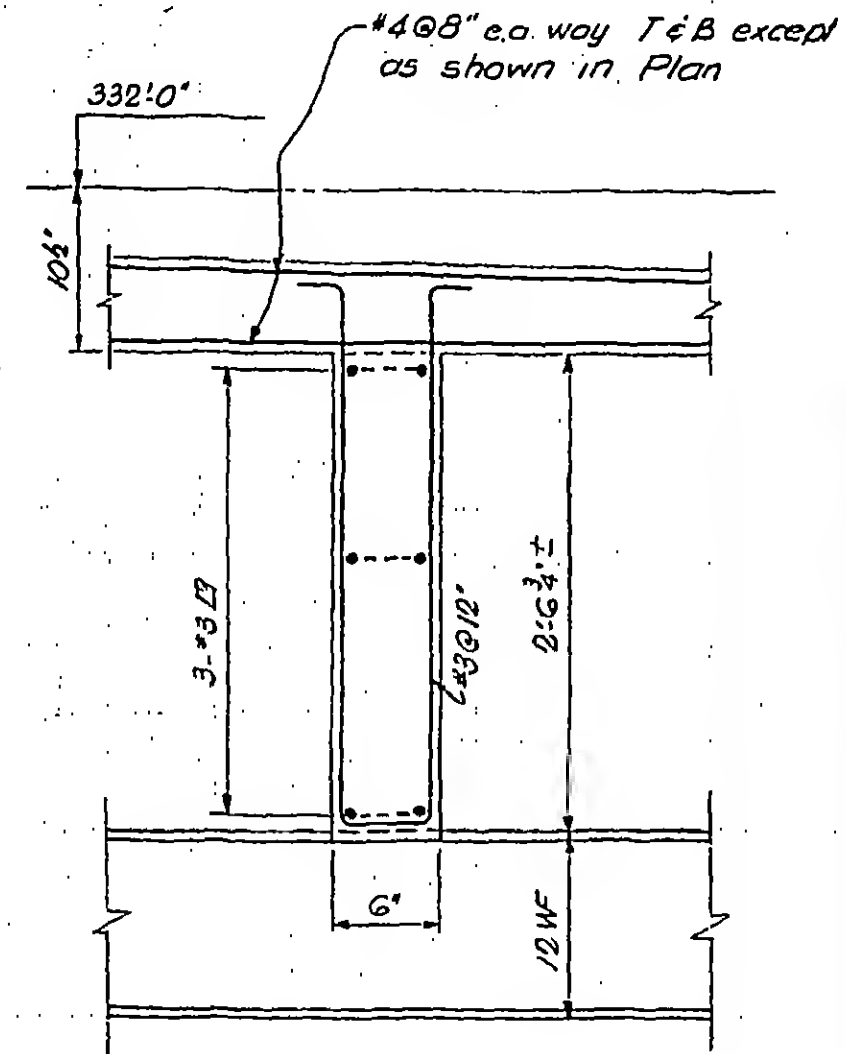
TITLE SECTIONS AT FLOOR 2

DATE 3-19-69

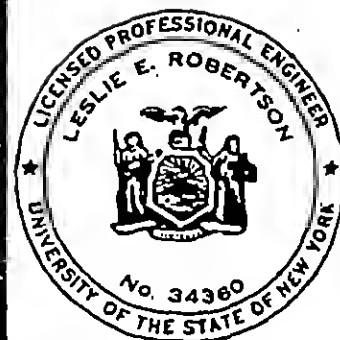
REVISIONS



Detail Plan U



Section V-V



DESIGNED

A.L.A.

DRAWN

G.T. Hellebranth

REVIEWED

Similar and opp. hand to Plan R on 8-A83-47.8, except as shown

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TITLE SECTIONS AT FLOOR 2

DATE 4-22-69

1'-0" Cantilever dimension varies. See Plan

332'-0"

4e12

8"

4'-1"

9 1/2"

1/4" min

3"

4"

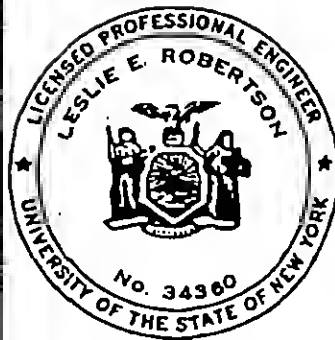
not less

Bolts thru sleeves or drilled holes See Arch dwg

See 8-AB3-47M and Plan

Section W-W

Typical for cantilever slabs
under balcony railing



DESIGNED
A. L. A.

DRAWN
Adams

REVIEWED

8-AB3-47.10

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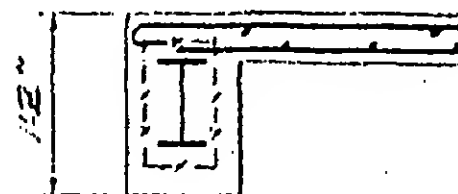
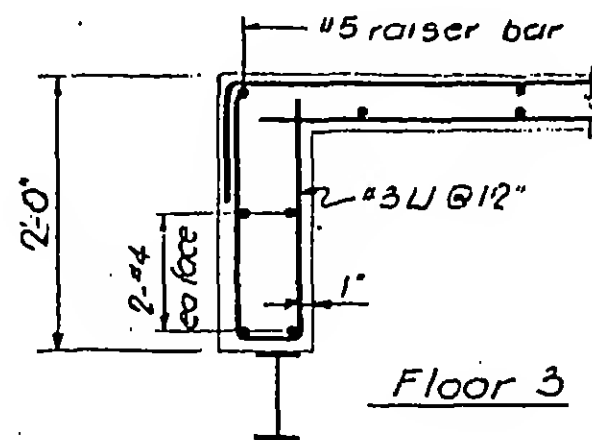
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

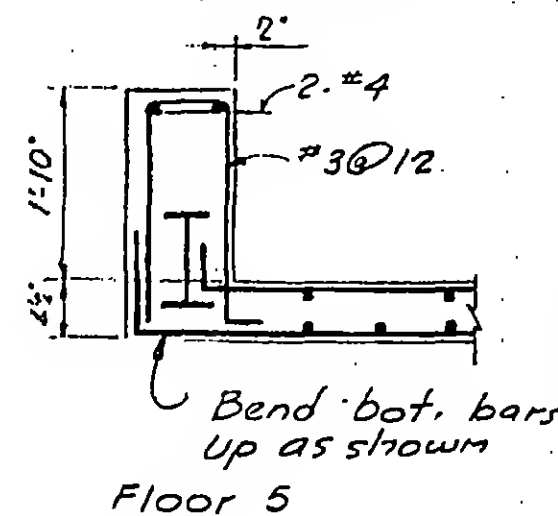
TITLE SECTIONS AT FLOORS 3-6

DATE 3-1-68

REVISIONS



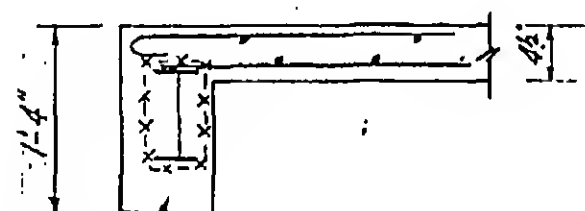
Floor 4



Floor 5

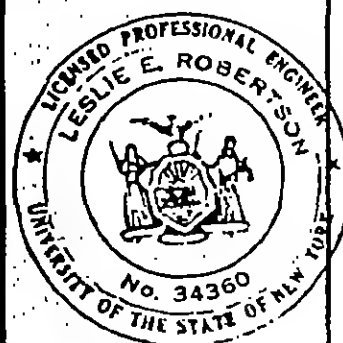
Section A-A

For inserts and other features see Archt. Dwgs.



Sim. to B-AB1-5

Floor 6

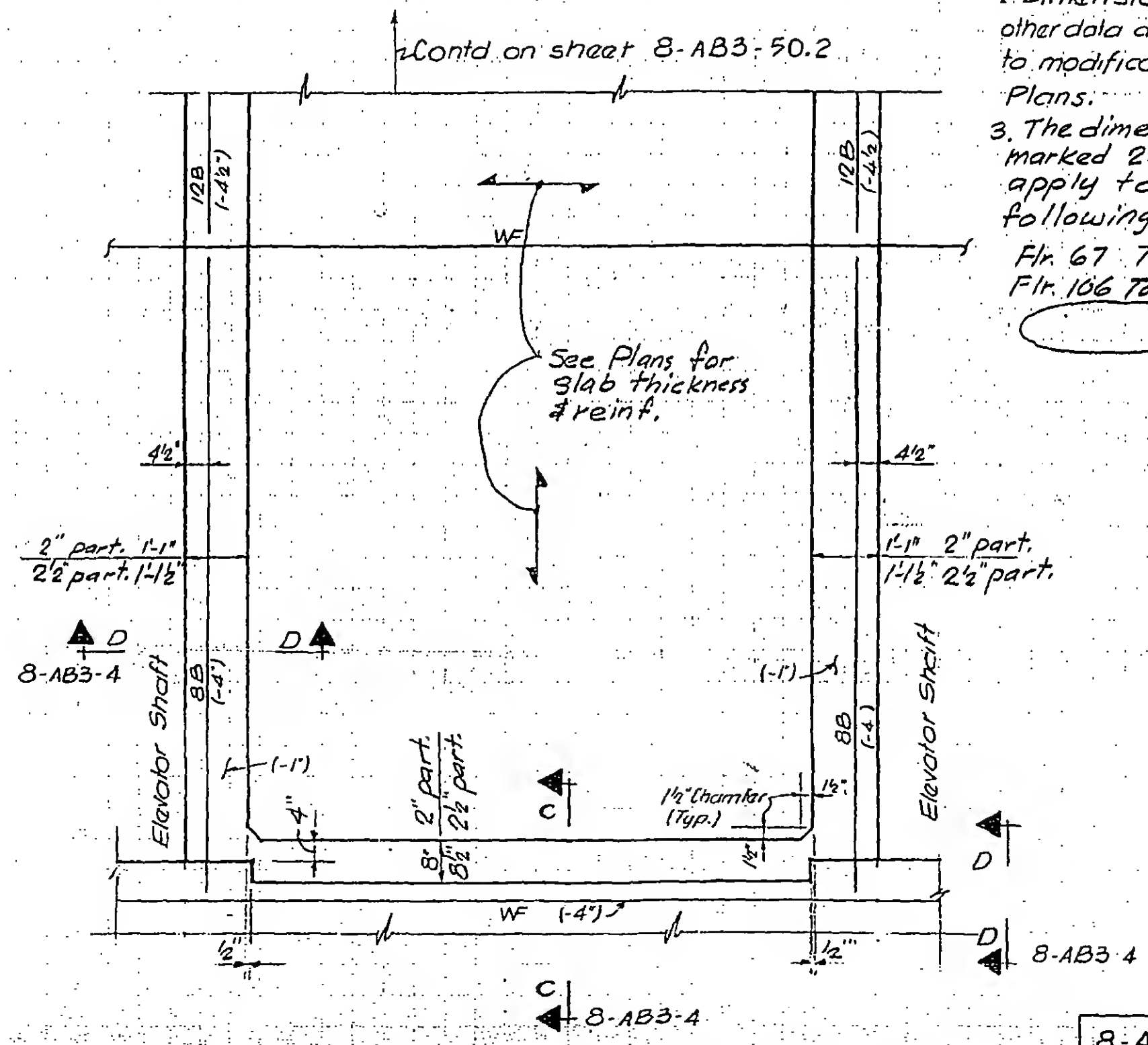


B-AB3-48

REVISIONS

5/31/68
12-1-70

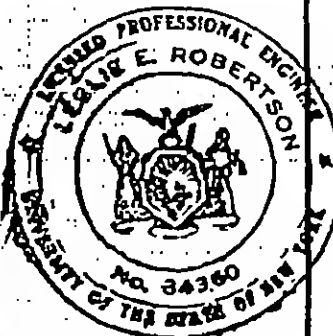
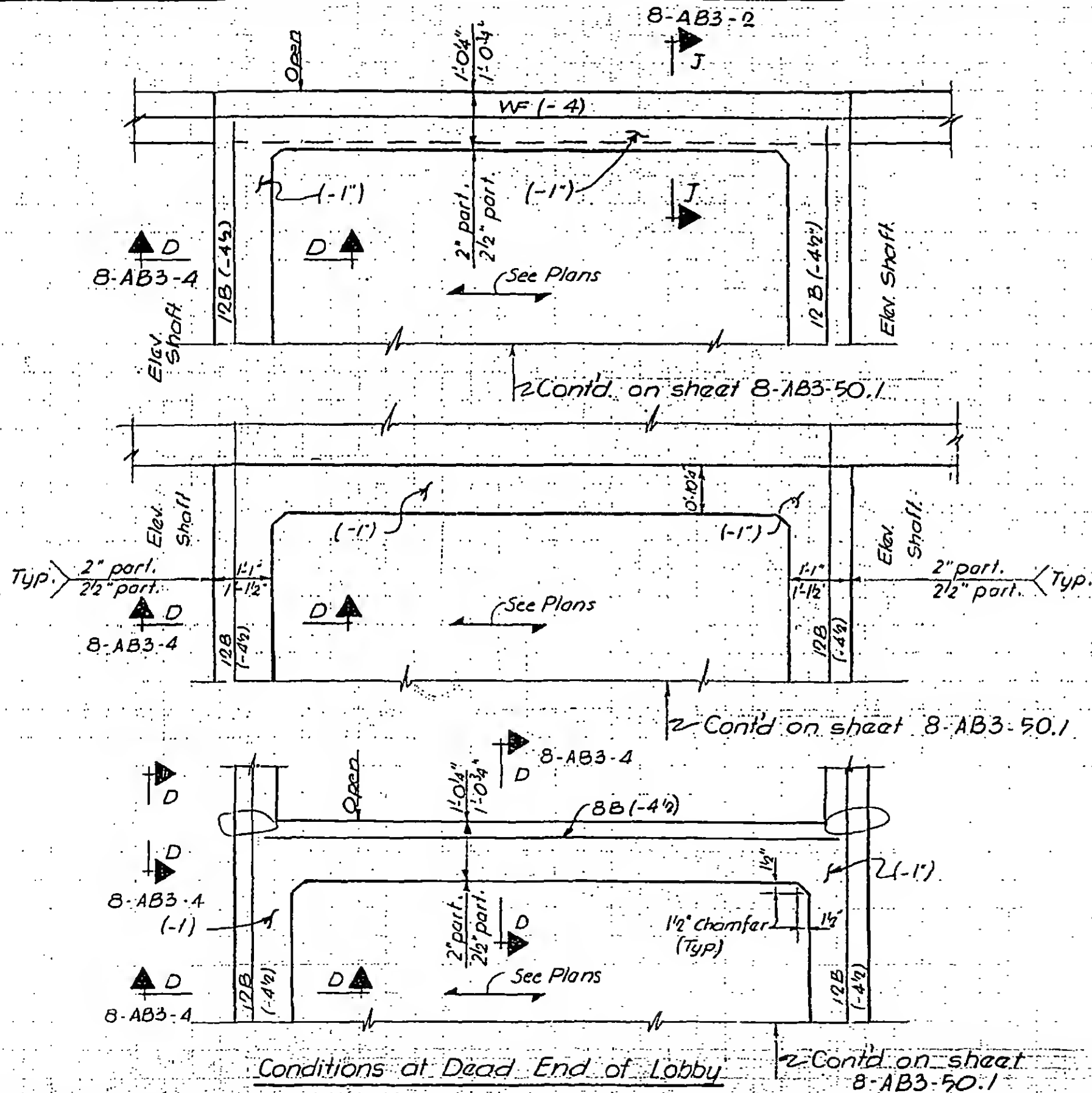
- Notes:
1. For reinf. not shown see 8-AB1-3
 2. Dimensions and other data are subject to modification - see Plans.
 3. The dimensions marked 2 1/2" partitions apply to the following floors only:
 Flr. 67 Tower A
 Flr. 106 Tower A & B



REVISIONS

5/31/68

1-17-69



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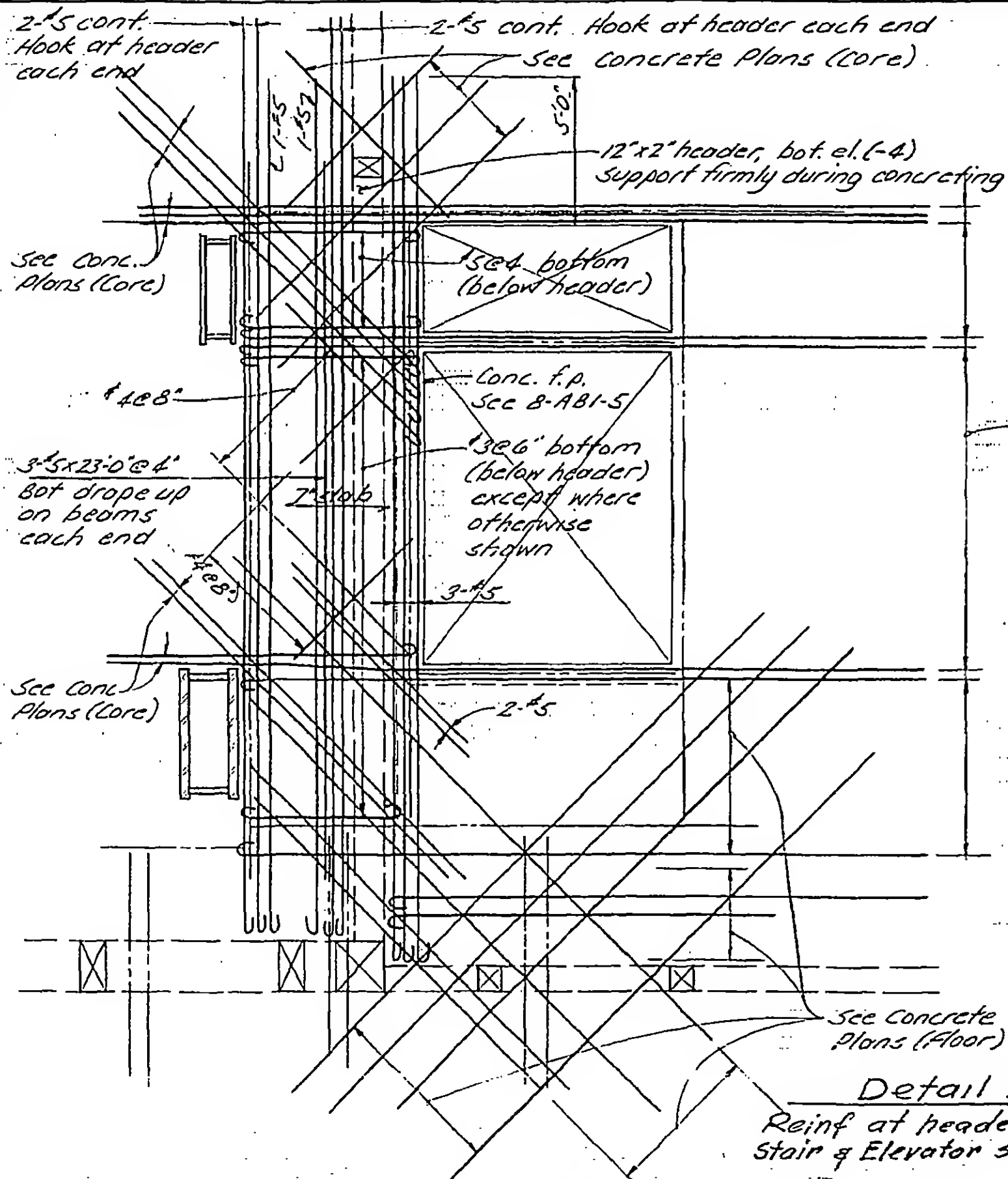
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE STAIR OUTSIDE CORE

DATE 3-1-68

REVISIONS

10-24-69
Gen. rev.

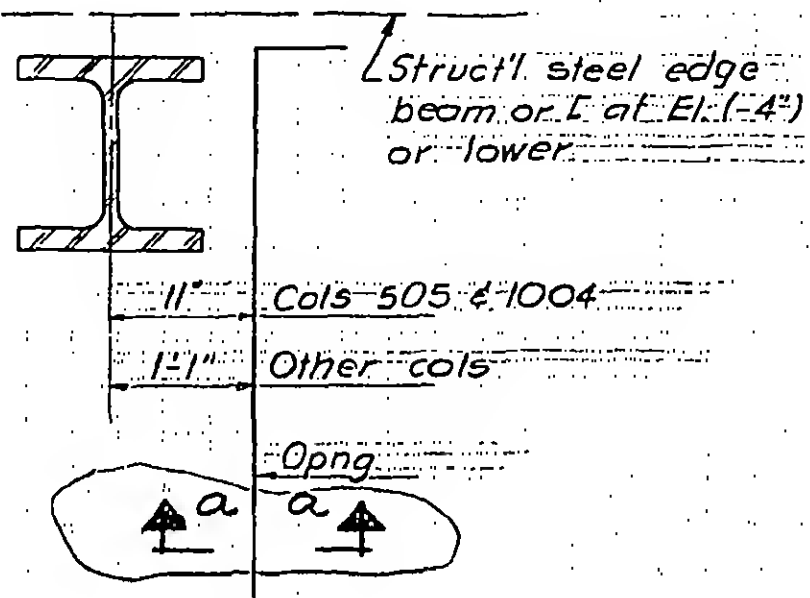
PROJECT THE WORLD TRADE CENTER

TITLE OUTLINE OF OPENINGS ON COLUMN LINES 500 AND 1000

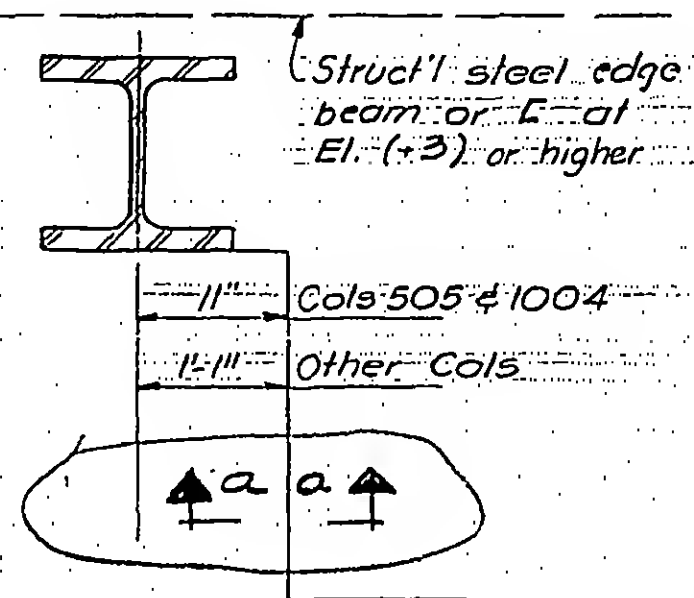
DATE 3-1-68

REVISIONS

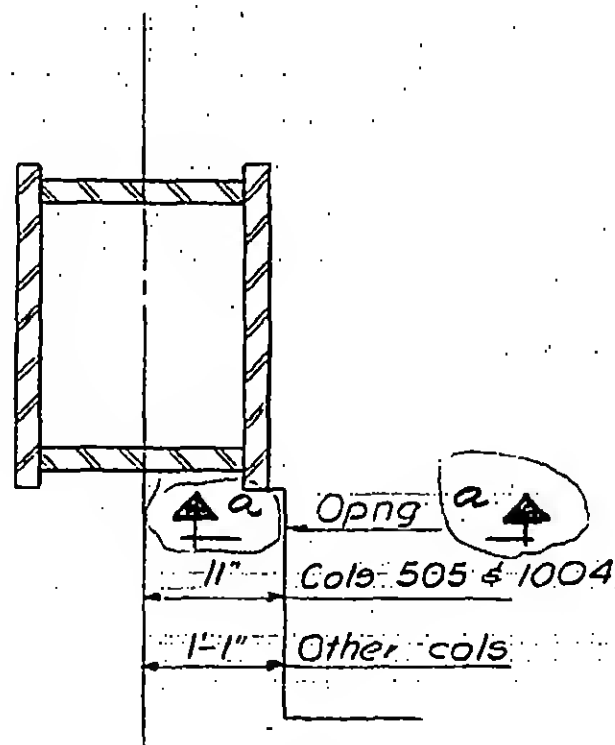
5/31/68



Detail B



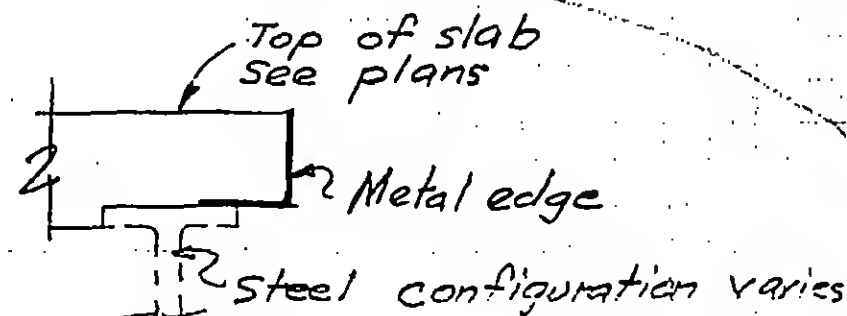
Detail C



Detail A

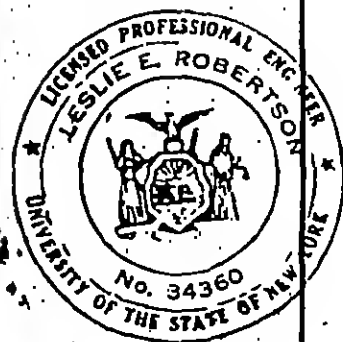
Notes:

1. For outline at core corner columns 501, 508, 1001, 1008 see 8-AB3-55
2. Use this detail also for openings opposite hand to those shown.



Section a-a

8-AB3-52



PROJECT THE WORLD TRADE CENTER

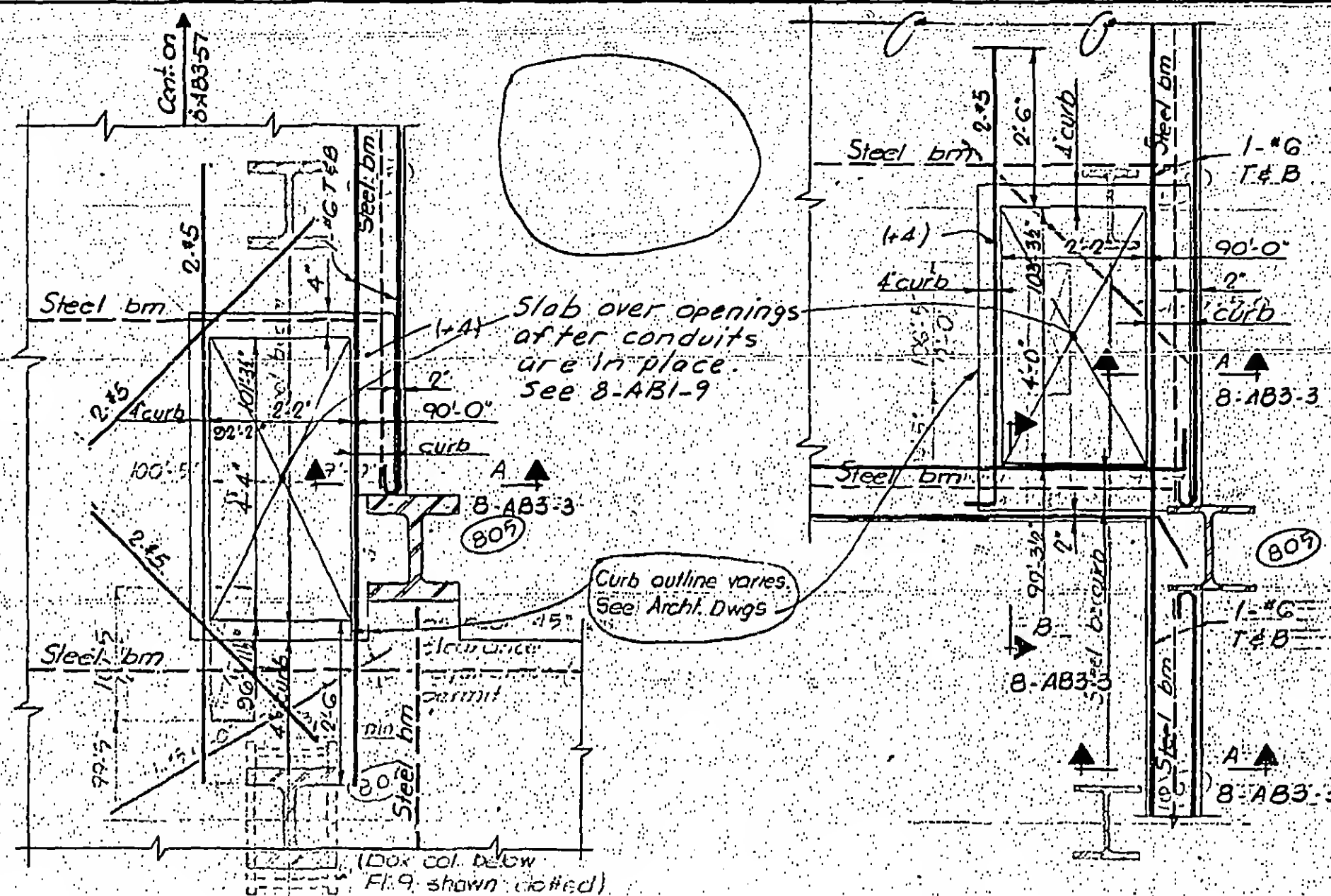
TITLE OPENINGS IN ELECTR. CLOSETS 'C'

DATE 3-1-68

REVISIONS

8-20-68-69

-1-17-69



Sublevel 4 - Fl. 75

Floors 2-40 and 44-74

Floor 17 shown. Other floors similar; for modifications see Plans

Floor 76-109

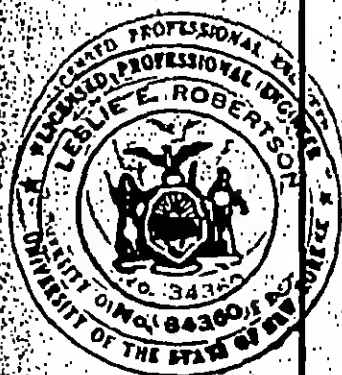
Floors 77-107

Floor 87 shown. Other floors similar; for modifications see Plans

Note

Being around, do not cut, bars running N-S at opening.

8-AB3-53



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PROJECT THE WORLD TRADE CENTER

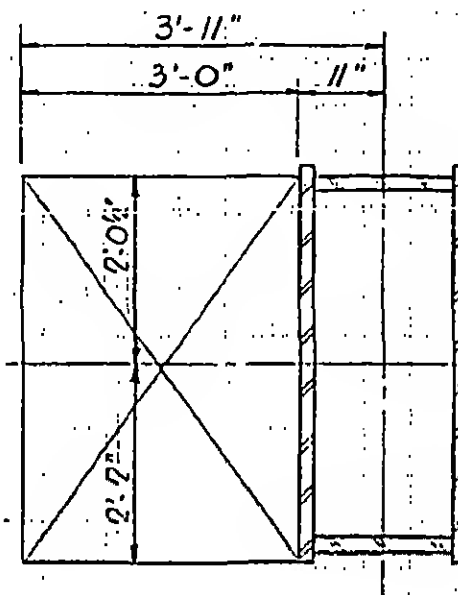
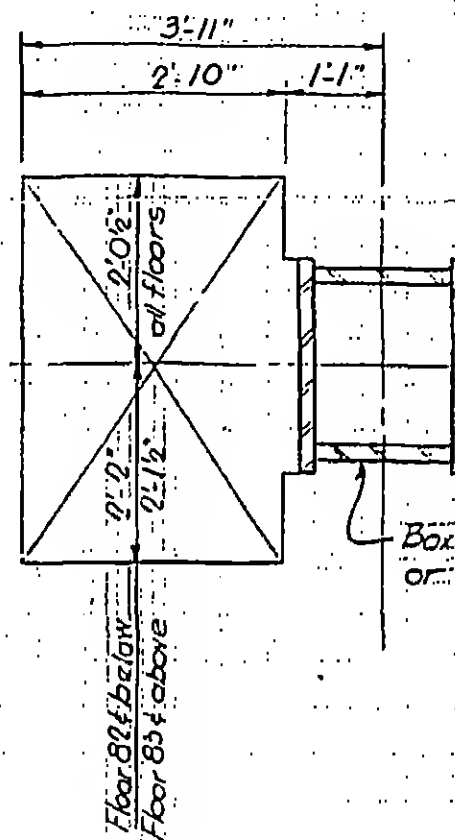
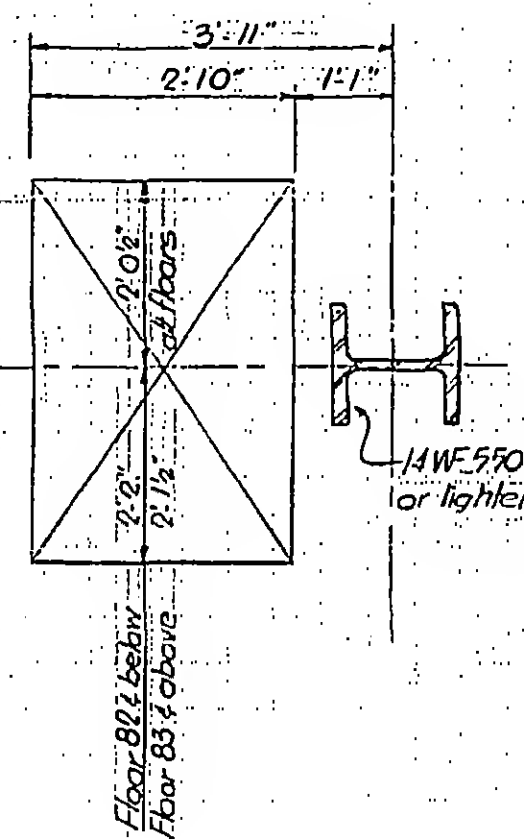
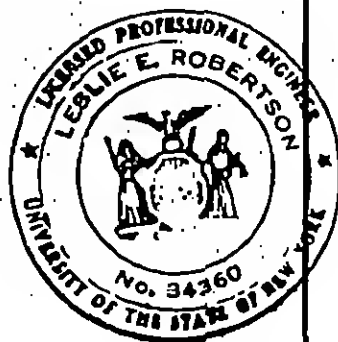
TITLE SHAFTS AT CORNERS OF CORE

DATE 3-1-68

REVISIONS

4-8-69

Cols 501, 1008 shown. Cols. 508, 1001 opposite hand

Detail ADetail BDetail C

8-AB3-55.1

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PROJECT THE WORLD TRADE CENTER

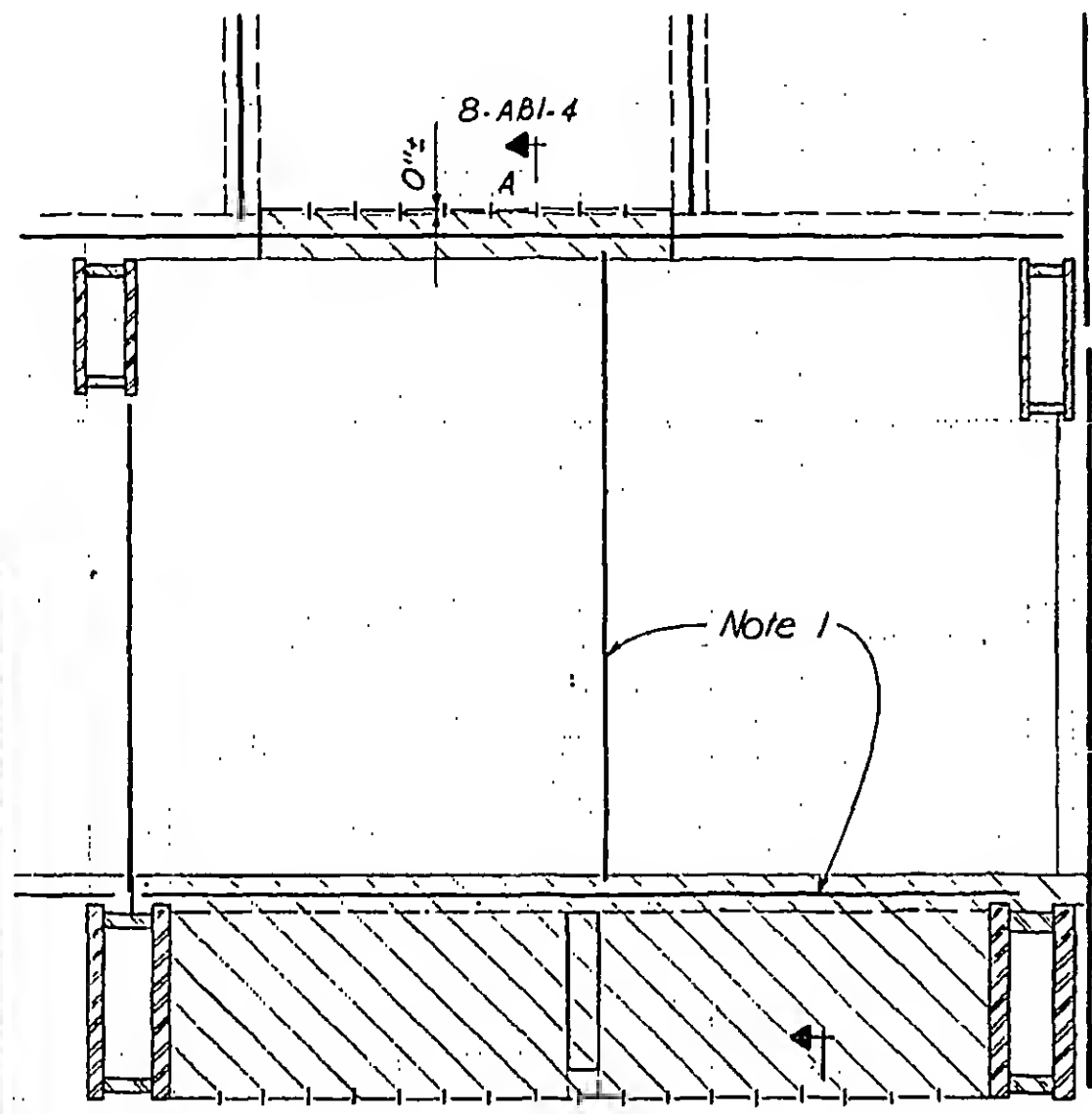
TITLE SHAFTS AT CORNERS OF CORE

DATE 11-19-68

REVISIONS

12-16-68

4-8-69



Notes:

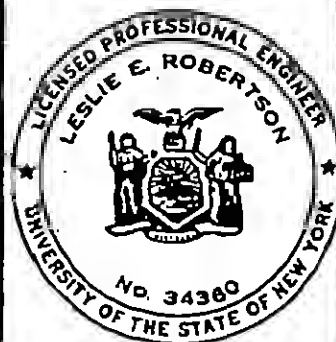
1. This steel beam will be erected after the general concreting at this level. Concrete shaded areas after its erection.
2. Floor 1 is shown in Detail at left. The following floors are similar (although sizes and fireproofing of steel members and extent of slabs vary):
Service Level El. 294'-0"
Intermediate Level El. 324'-0"
Floor 2, El. 332'-0"
Floors 3-45

3. Constr. joints are shown thus: —|—|—
For constr. jts in slabs & conc. fireproofing to beams see 8-AB1-4. Full details of construction shall be submitted in Shop Dwg. See Note #3 on 8-AB1-4.1

Detail D

At Floor 1, El. 310'-0"

Col. 1008 shown
Col. 501 similar
Cols. 508 & 1001 similar & opp. hand.



DESIGNED

A.L.A.

DRAWN

G.T.H.

REVIEWED

8-AB3-55.2

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

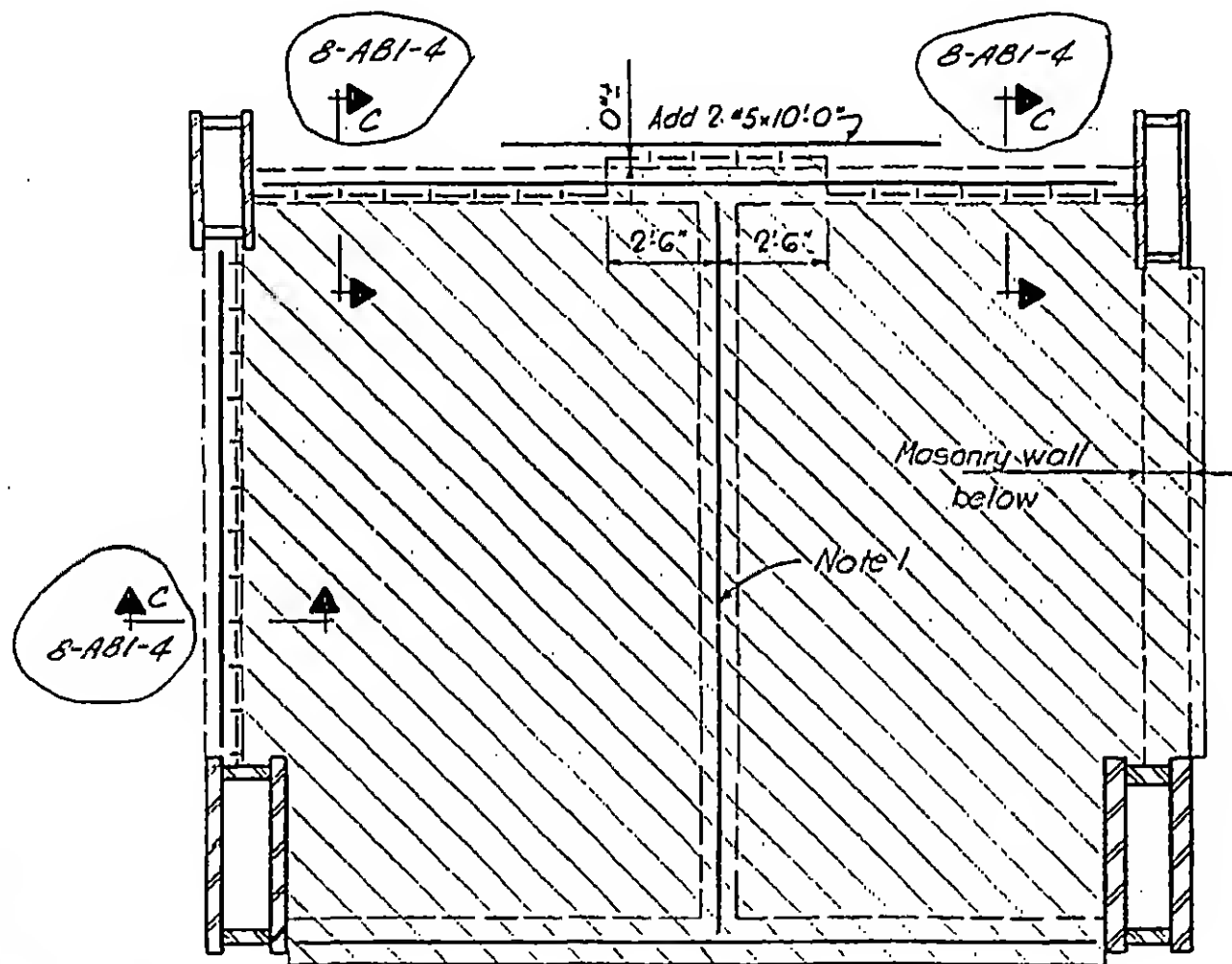
PROJECT THE WORLD TRADE CENTER

TITLE SHAFTS AT CORNERS OF CORE

DATE 12-16-68

REVISIONS

4-8-69



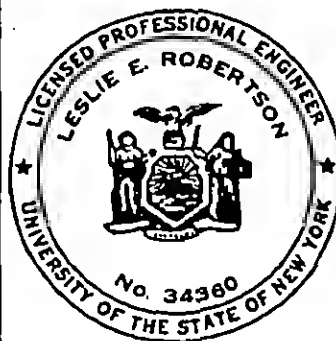
Notes:

1. This steel beam will be erected after the general concreting at this level. Concrete shaded areas after its erection.
2. For constr. jts. in slabs & conc. fireproofing to beams see 8-ABI-4. Full details of construction shall be submitted in Shop Dwg. see Note #3 on 8-ABI-4.

Detail E - Tower A El. 254'-0"

Col. 1008 shown

Col. 508 opp. hand



DESIGNED

A.L.A.

DRAWN

G.T.H.

REVIEWED

8-AB3-553

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

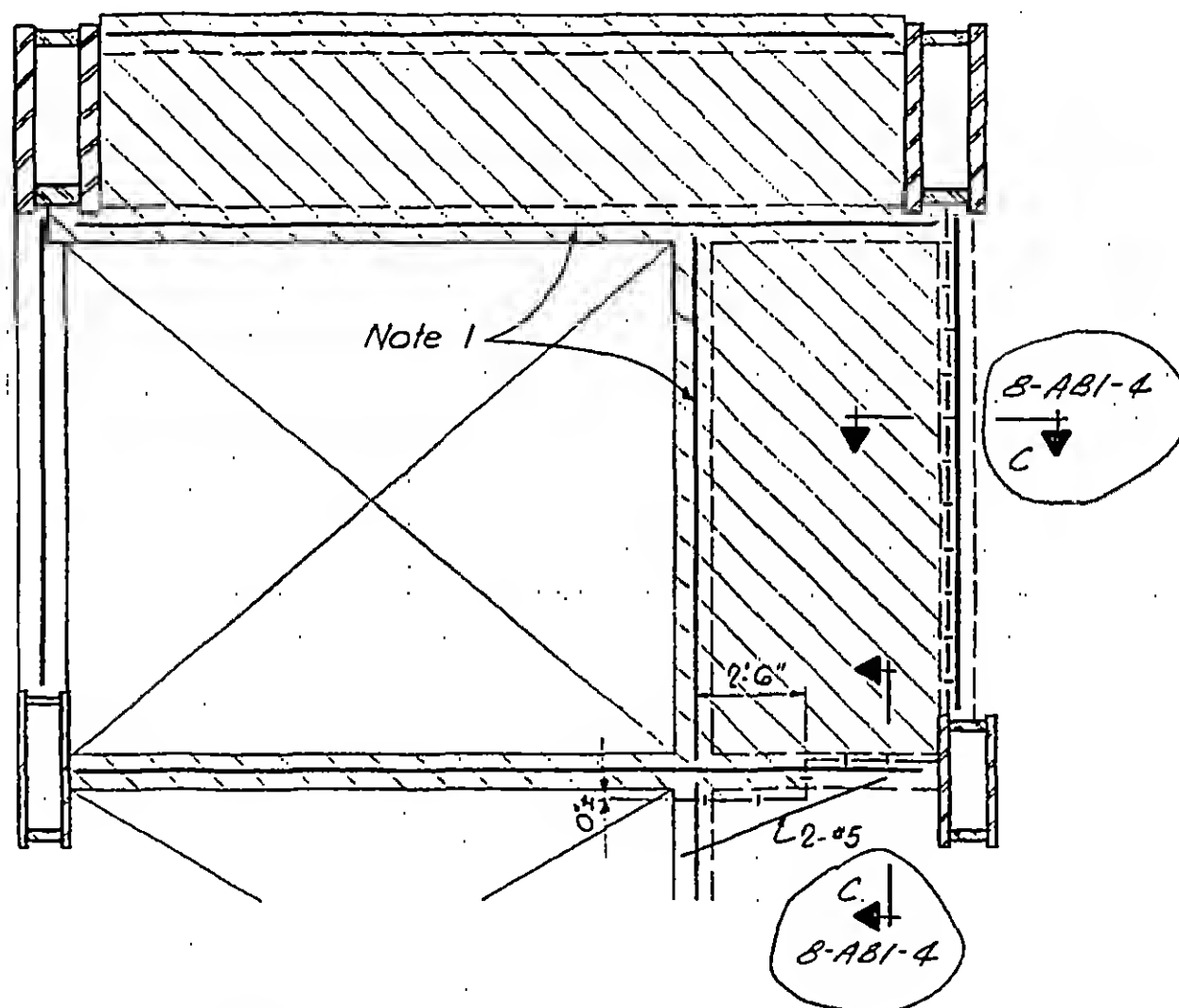
PROJECT THE WORLD TRADE CENTER

TITLE SHAFTS AT CORNERS OF CORE

DATE 12-16-68

REVISIONS

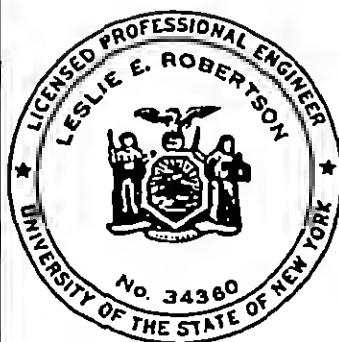
4-8-69

Detail F - Tower A El. 255'-6"

Col. 501 shown

Col. 1001 opp. hand

See Notes on 8-AB3-55.3



DESIGNED

A.L.A.

DRAWN

G.T.H.

REVIEWED

8-AB3-55.4

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

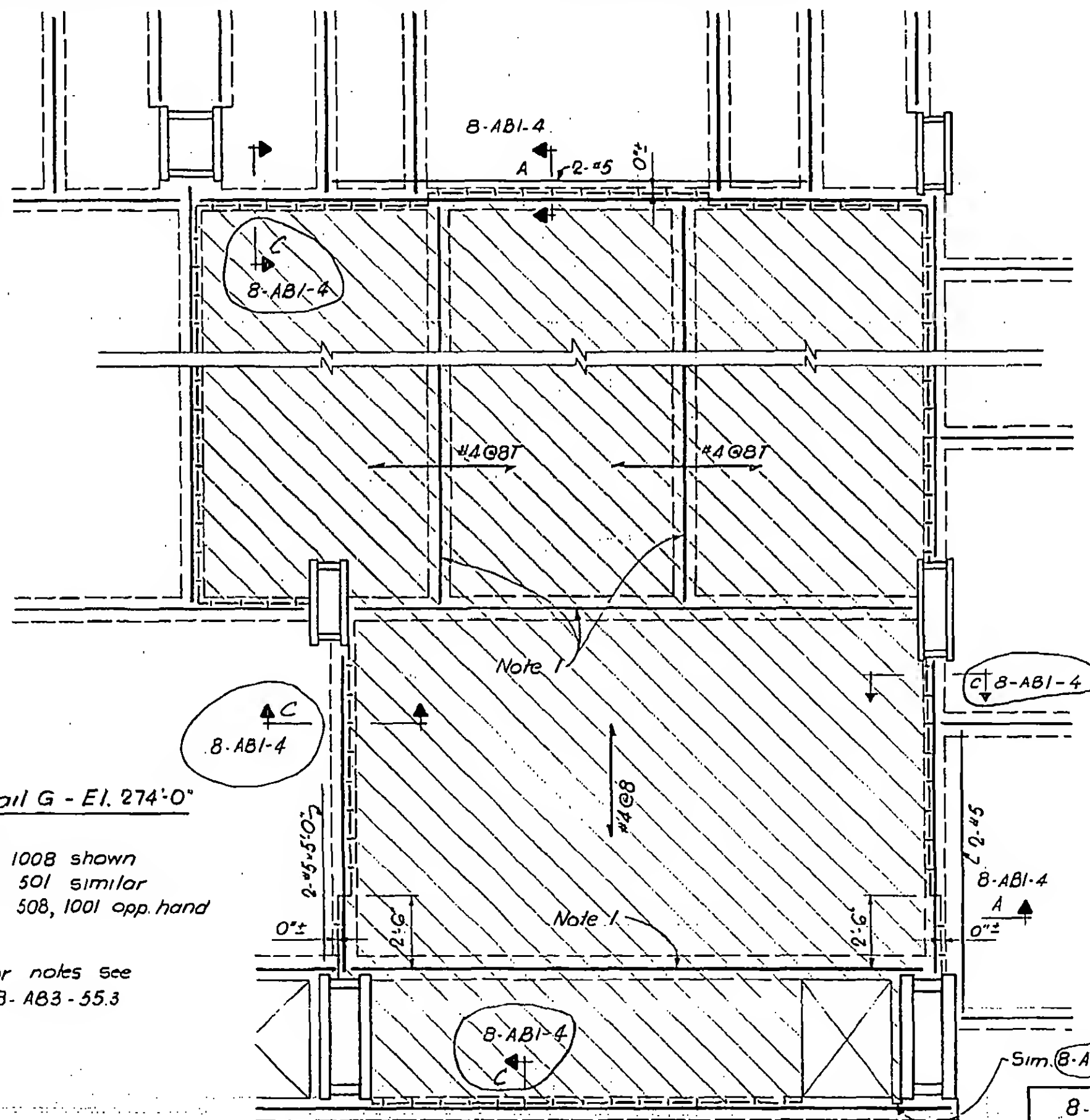
PROJECT THE WORLD TRADE CENTER

TITLE SHAFTS AT CORNERS OF CORE

DATE 12-16-68

REVISIONS

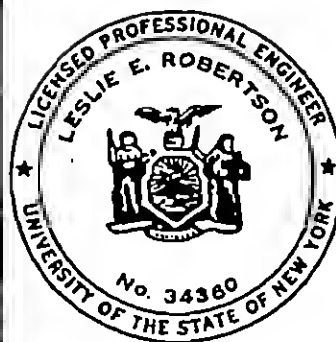
4-8-69



Detail G - El. 274'-0"

Col. 1008 shown
Col. 501 similar
Cols. 508, 1001 opp. hand

For notes see
8-AB3-55.3



DESIGNED

A.L.A.

DRAWN

G.T.H.

REVIEWED

8-AB3-55.5

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

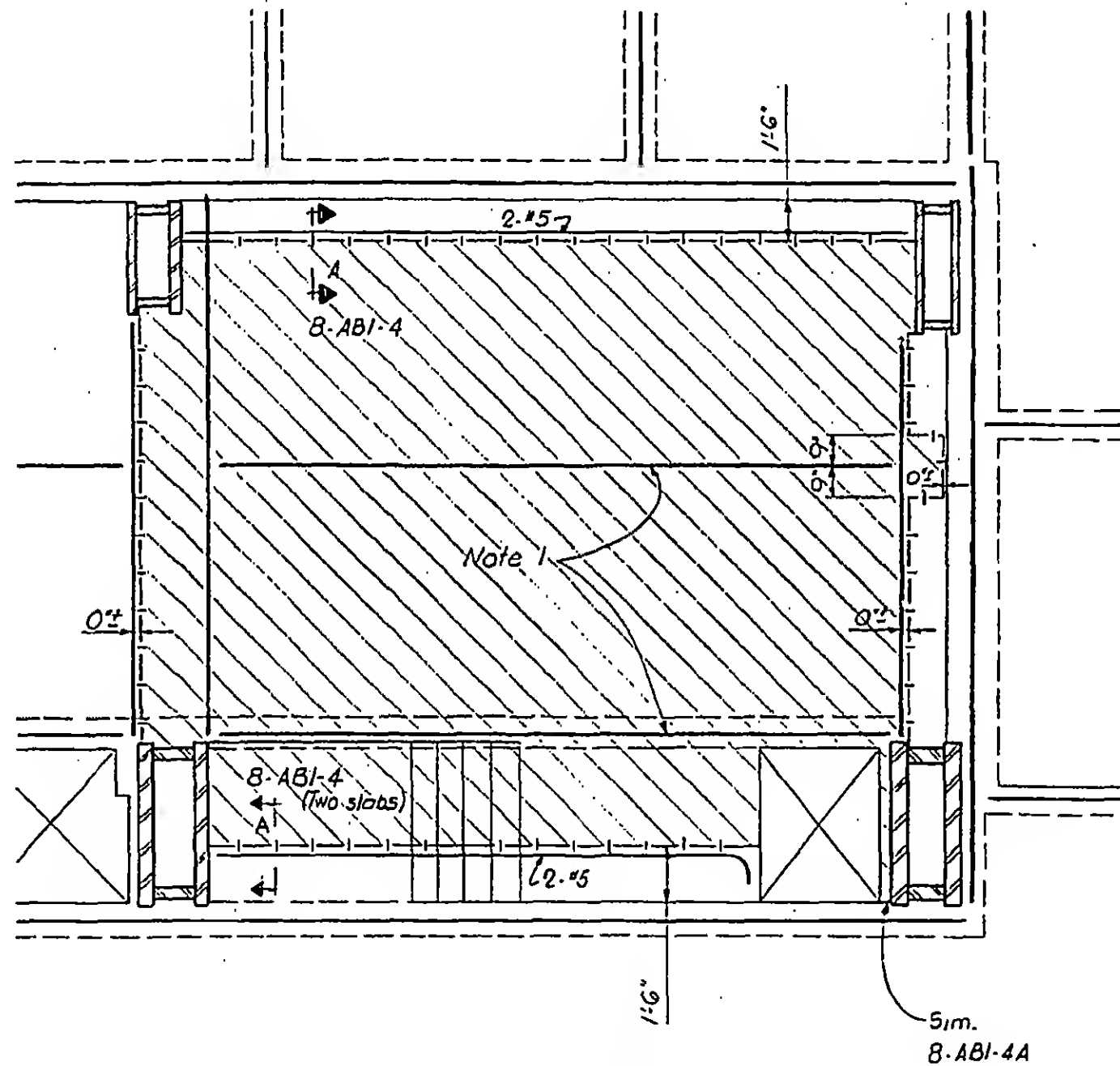
TITLE SHAFTS AT CORNERS OF CORE

DATE 12-16-68

REVISIONS

4-8-69

10-24-69



Detail H - El. 284'-0"

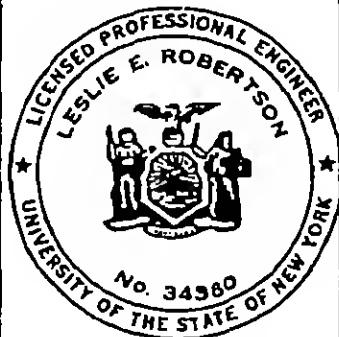
Col. 1008 A shown

Col. 501 A & B similar

Cols. 506 B, 508 A, 1001 A & B opp hand.

For notes see 8-AB3-55.3 and 8-AB1-4.3

8-AB3-55.6



A.L.A.

DESIGNED

DRAWN

G.T.H.

REVIEWED

Structural & Civil Engineers

PROJECT

THE WORLD TRADE CENTER

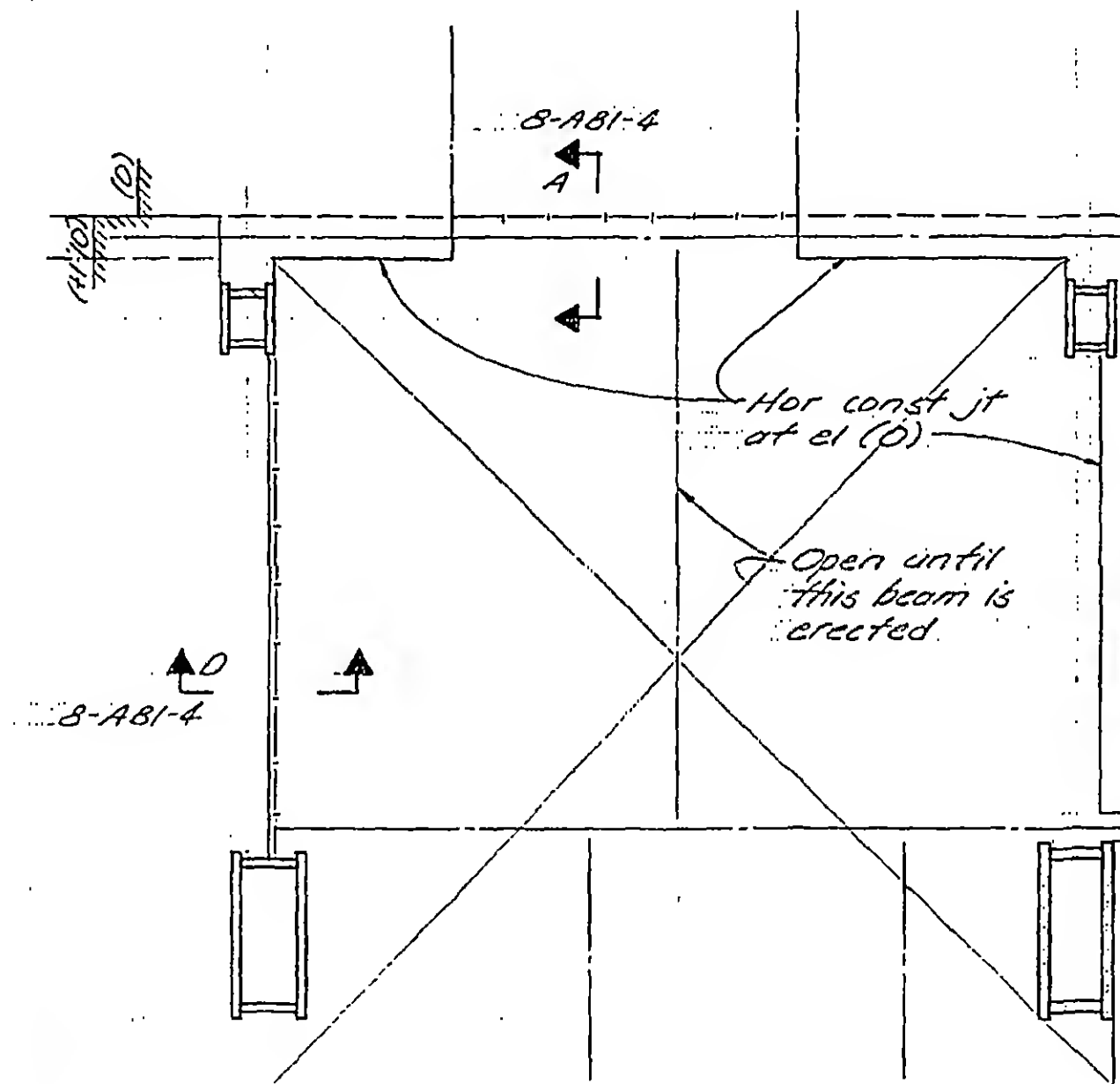
TITLE

SHAFTS AT CORNERS OF CORE

DATE _____

4-8-69

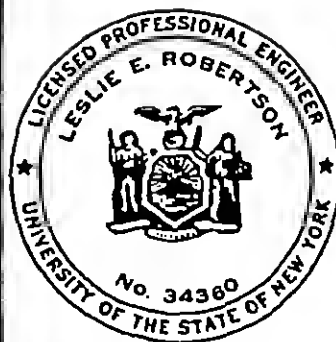
REVISIONS



Detail J

Drawn for Floor 46 at col 1008

Other locations similar and/or opp hand



DESIGNED

A. L. A.

DRAWN

J. J. Jones

REVIEWED

8-A83-55.7

Structural & Civil Engineers

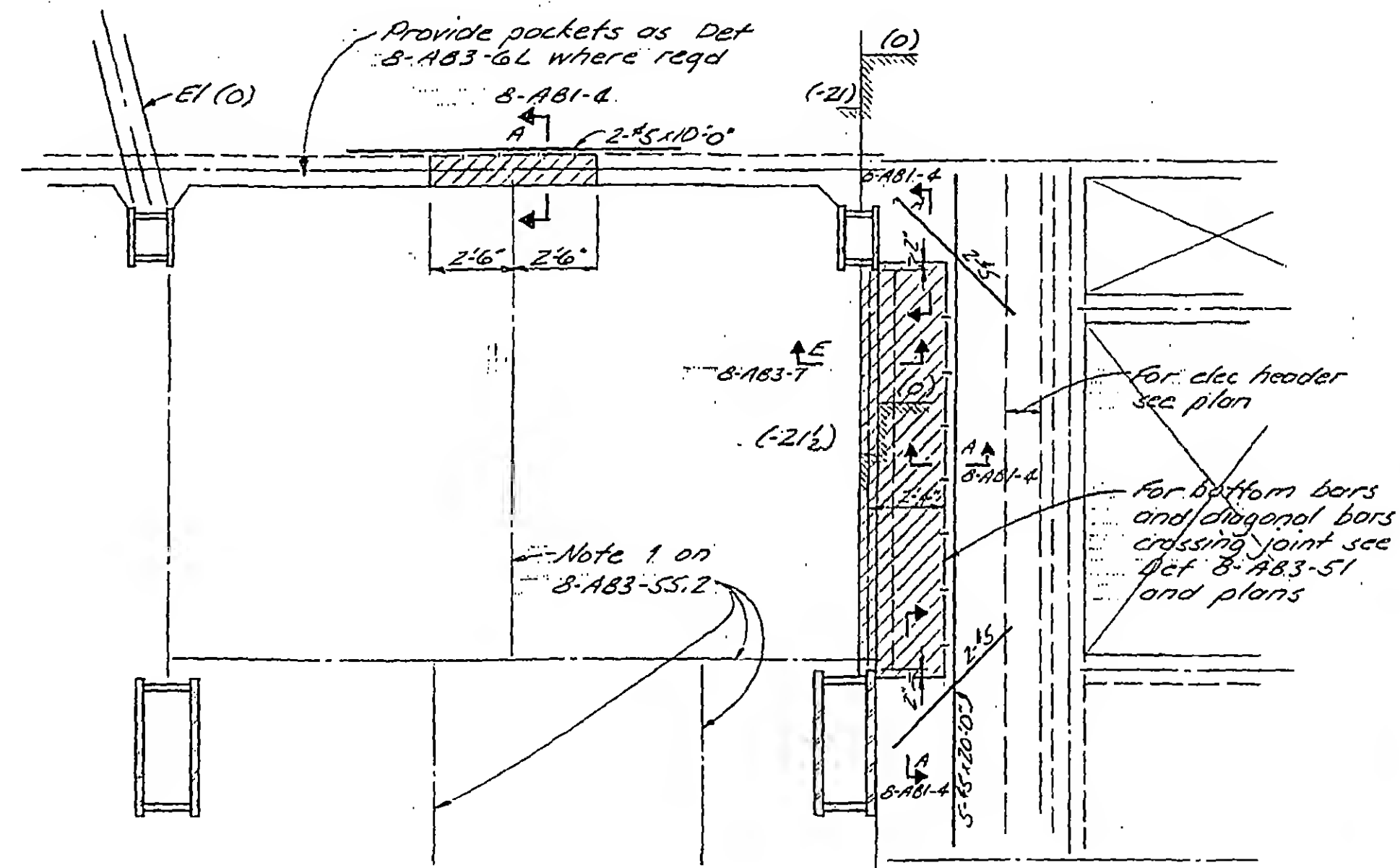
PROJECT THE WORLD TRADE CENTER

TITLE SHAFTS AT CORNERS OF CORE

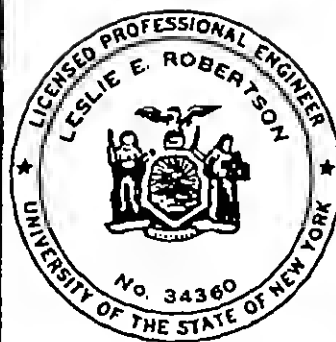
DATE 4-8-69

REVISIONS

GEN. REY. 5-15-69

Detail K

Drawn for Floor 47 at Col. 1008
Other locations similar and/or opp. hand



DESIGNED

A.L.A

DEATH

L. Adams

REVIEWER

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

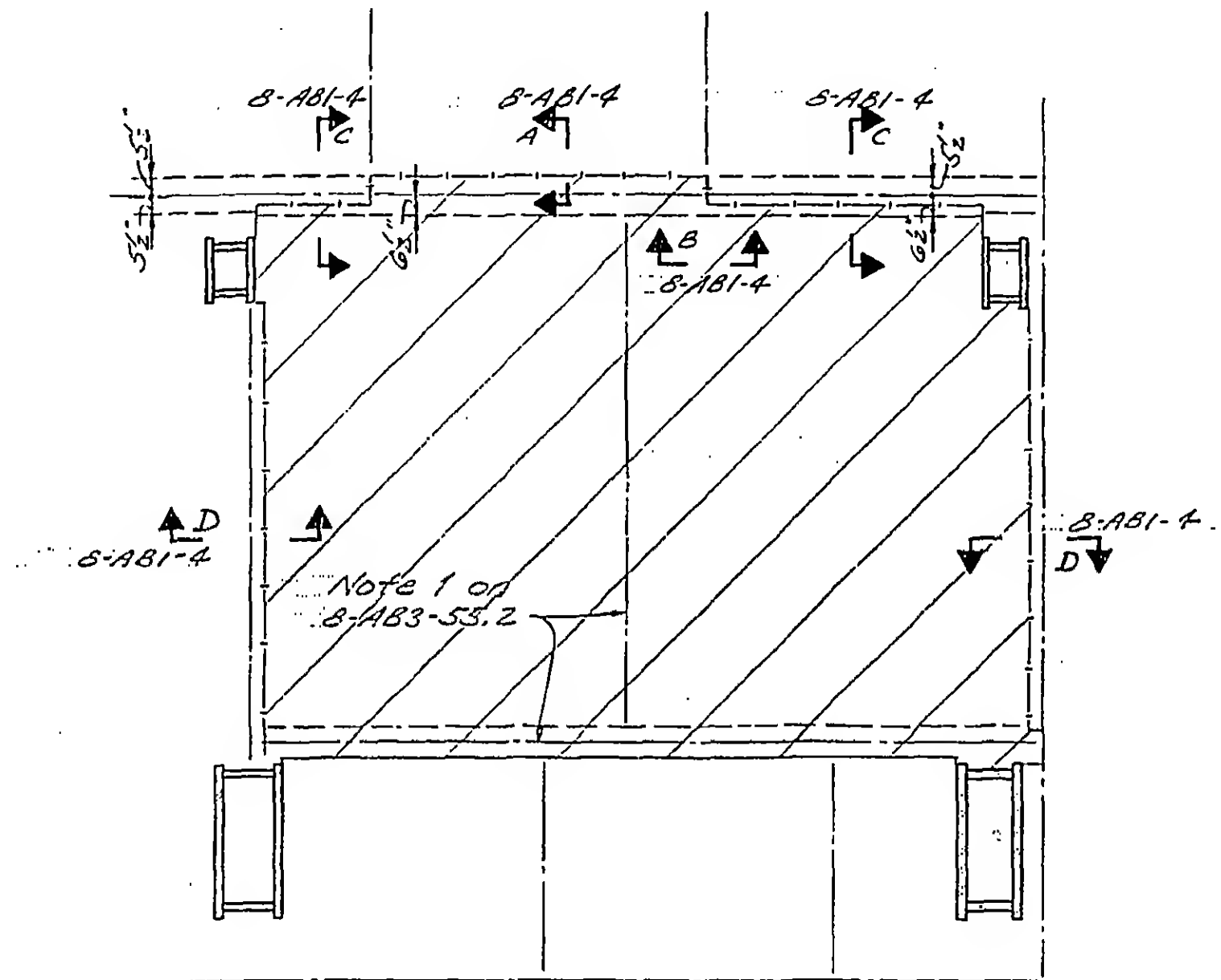
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

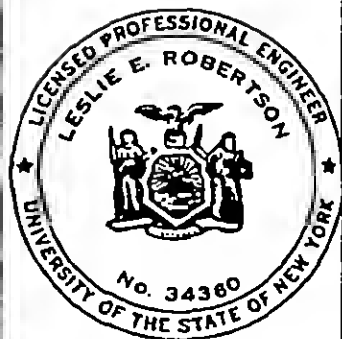
TITLE OPENINGS AT CORNERS OF CORE

DATE 4-8-69

REVISIONS

Detail L

Drawn for Floor 48 at Col 1008
Other locations similar and/or opp hand

DESIGNED
A.L.A.DRAWN
J. Adams

REVIEWED

B-AB3-55.9

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

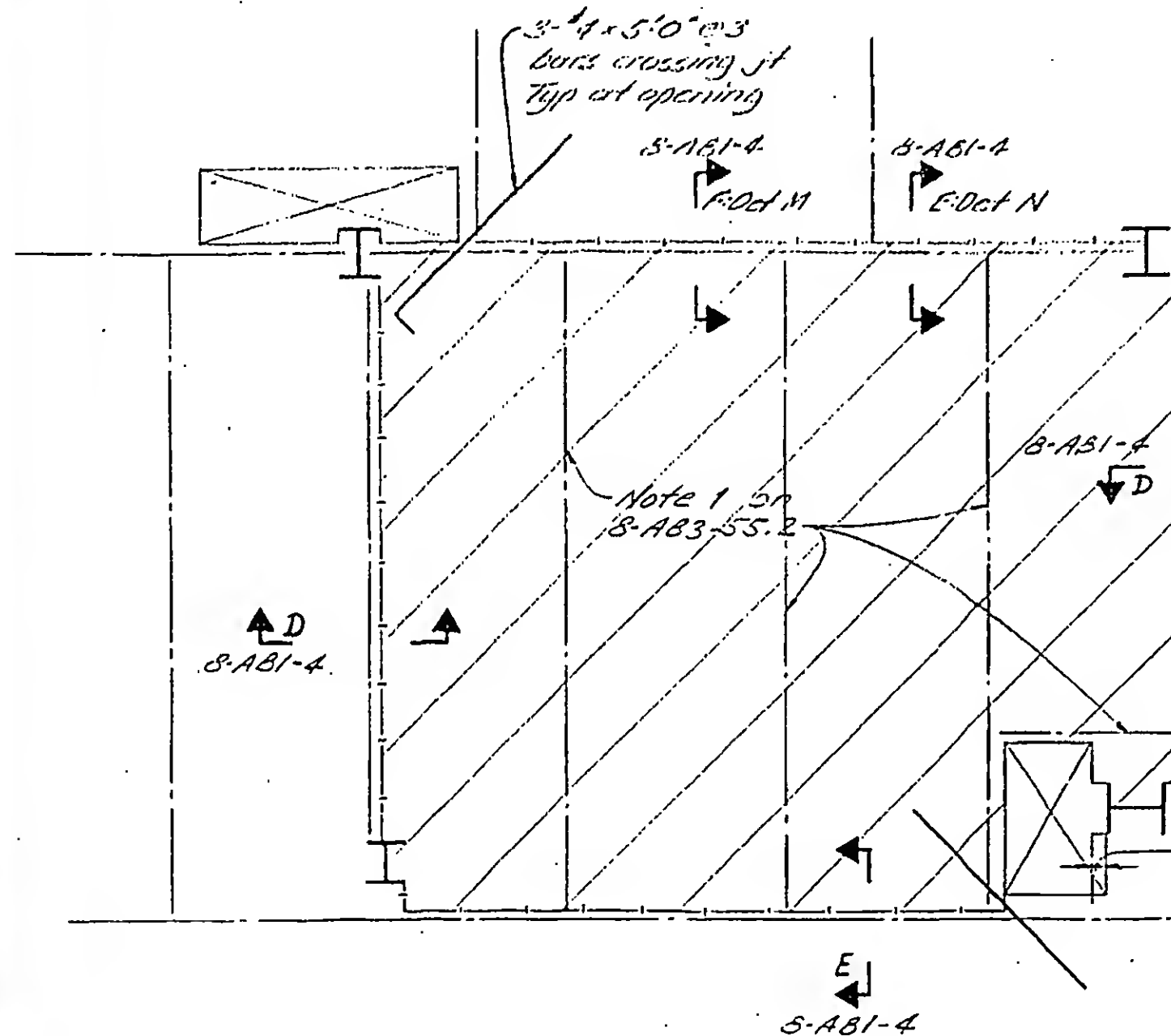
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE SHAFTS AT CORNERS OF CORE

DATE 4-8-69

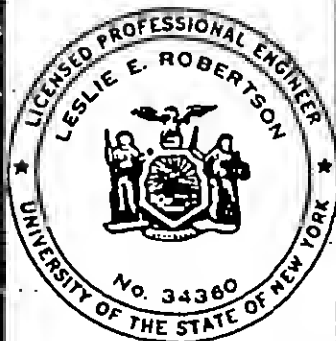
REVISIONS



NOTE: Some of the bars crossing joint into shaded area must be bent and re-straightened. Any bars subject to this operation shall be #4 or smaller. Where larger bars are shown in Plan, substitute an equivalent amount of #4 bars.

Details M & N

Drawn for Floor 87 at Col 1008
Other locations similar and for opp hand
Openings and other details vary - see Plans

DESIGNED
A.L.A.

DRAWN

REVIEWED

8-AB3-55.10

PROJECT THE WORLD TRADE CENTER

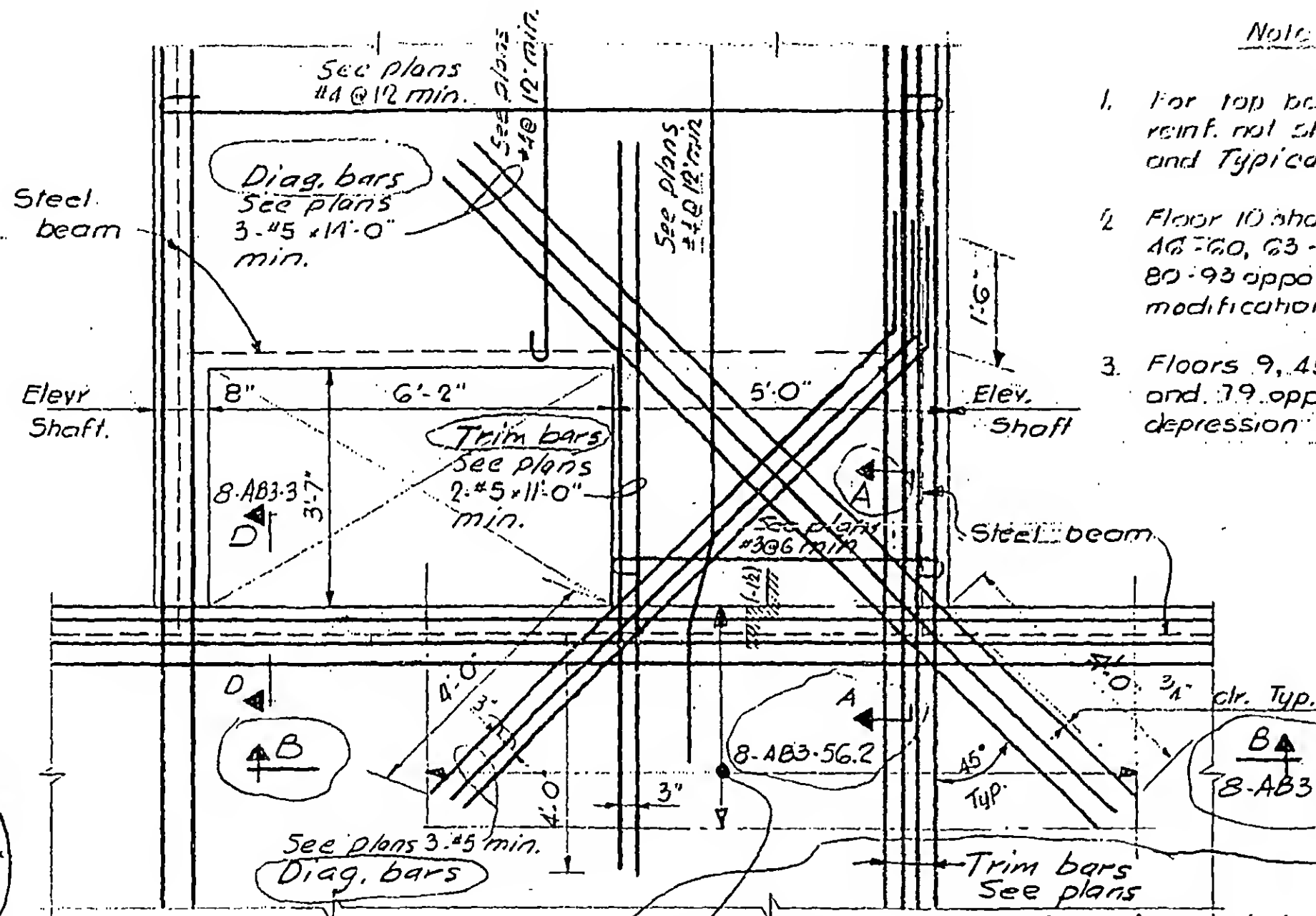
TITLE SLAB BETWEEN MEN'S TOILET EXHAUST AND FLOOR SHAFTS

DATE: 3-1-68

REVISIONS

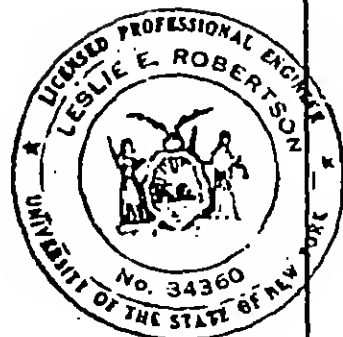
10/24/69

Notes:



1. For top bars and other reinf. not shown see Plans and Typical Details
2. Floor 10 shown. Floors 11-31, 40-60, 63-66 similar, floors 80-93 opposite hand; for modifications see Plans
3. Floors 9, 45, 62 also similar and 79 opp. hand; but depression 2" instead of 1 1/2"

Note: Place diag. bars, trim bars, and NS bottom bar this area before placing EW bottom bars in upper slab. See Sections A-A and B-B 8-AB3-56.2



8-AB3-56.1

SKILLING, HELLE CHRISTIANSEN, ROBERTSON

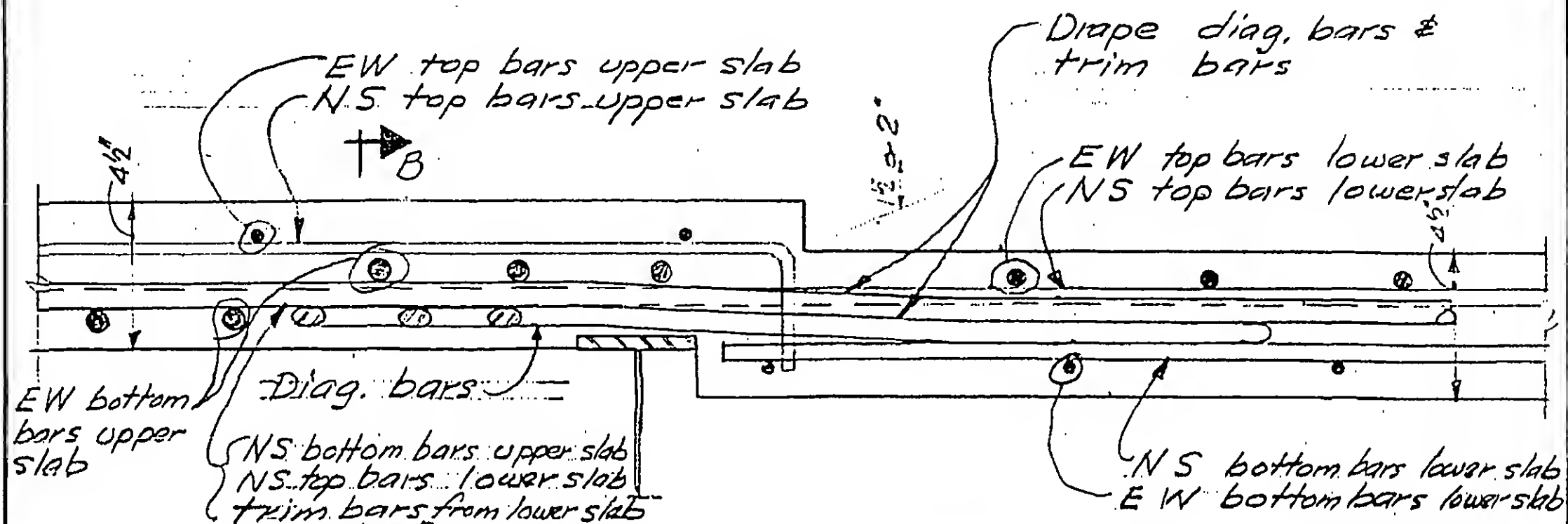
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

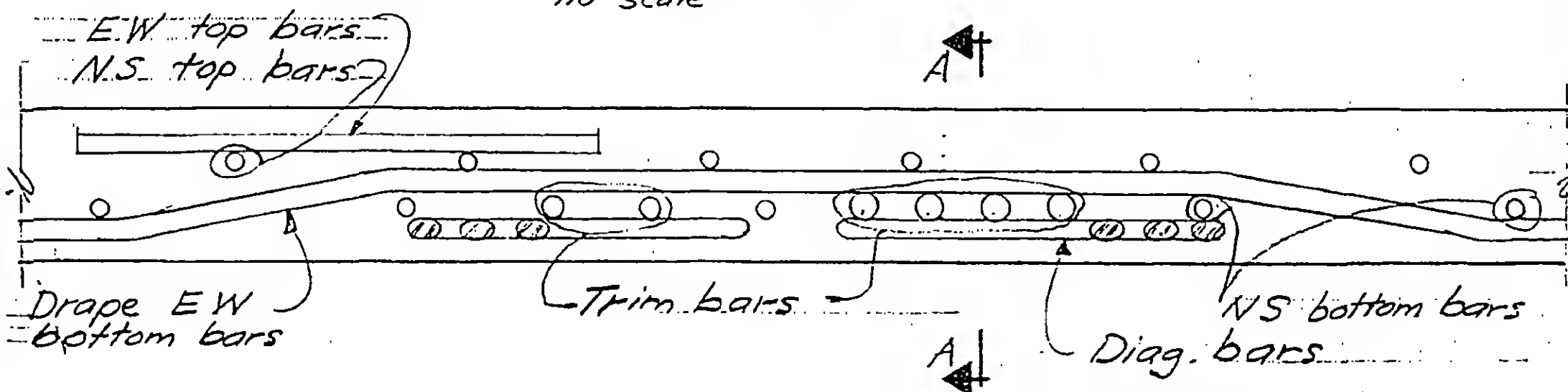
TITLE SLAB BETWEEN MEN'S TOILET EXHAUST AND ELE. SHAFTS

DATE 10-24-69

REVISIONS



Section A-A
no scale



Section B-B
no scale

Note: Interrupt
raiser bars as req'd.



DESIGNED

DRAWN

D.C. Huggins

REVIEWED

8.AB3-56.2

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON Structural & Civil Engineers

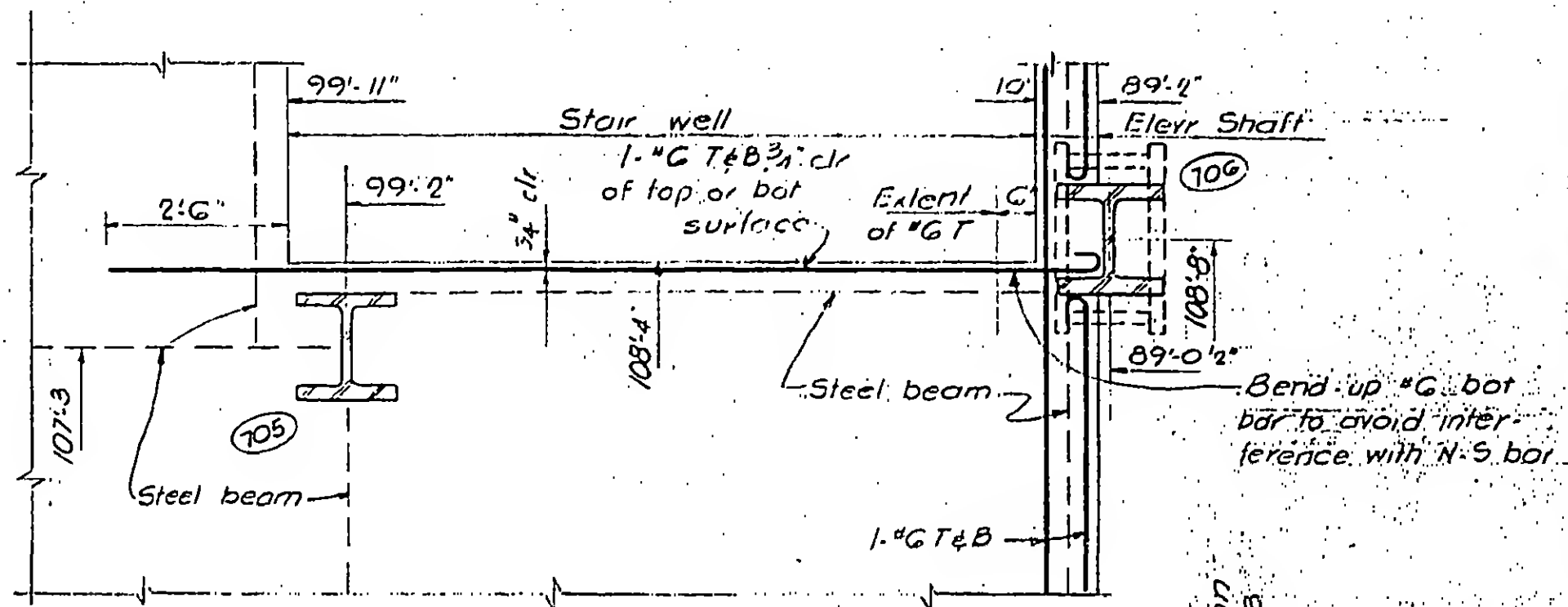
PROJECT THE WORLD TRADE CENTER

TITLE REINF. DETAIL AT OPENING BETWEEN COLS. 705 & 706

DATE 3-1-68

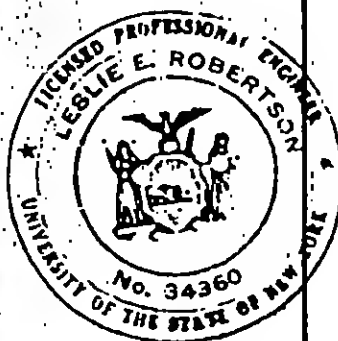
REVISIONS

-17-69



Floor 49 shown. Floors 9-25, 44-62 similar

For continuation
See 8-AB3-53



8-AB3-57

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

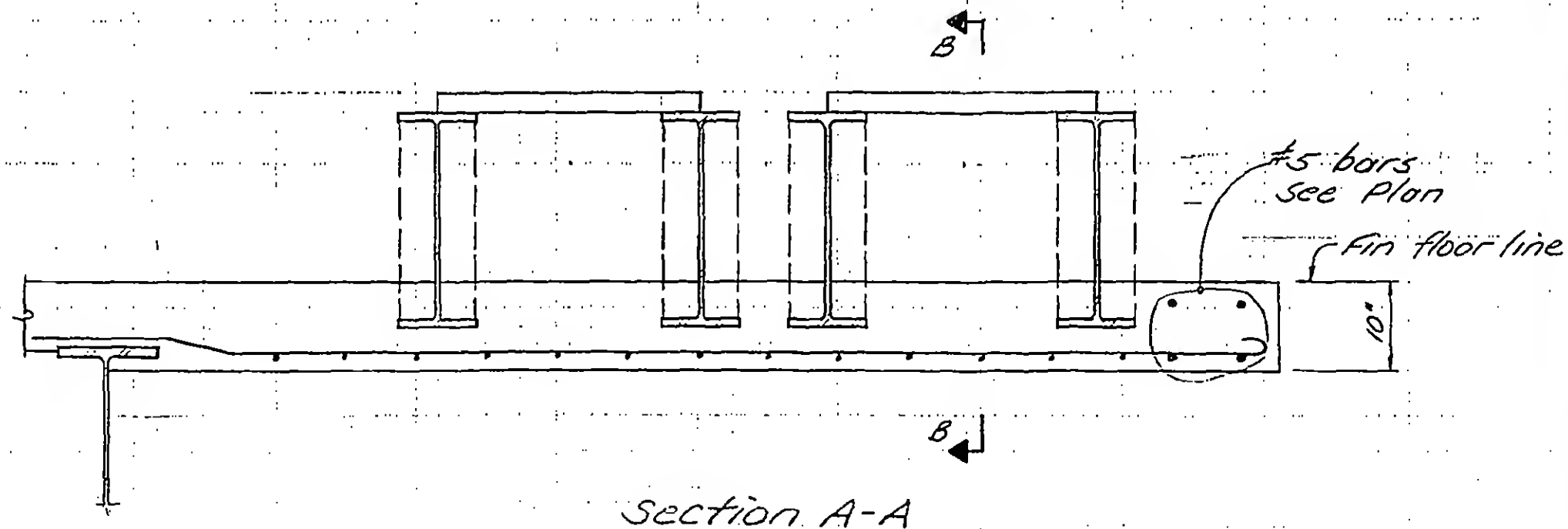
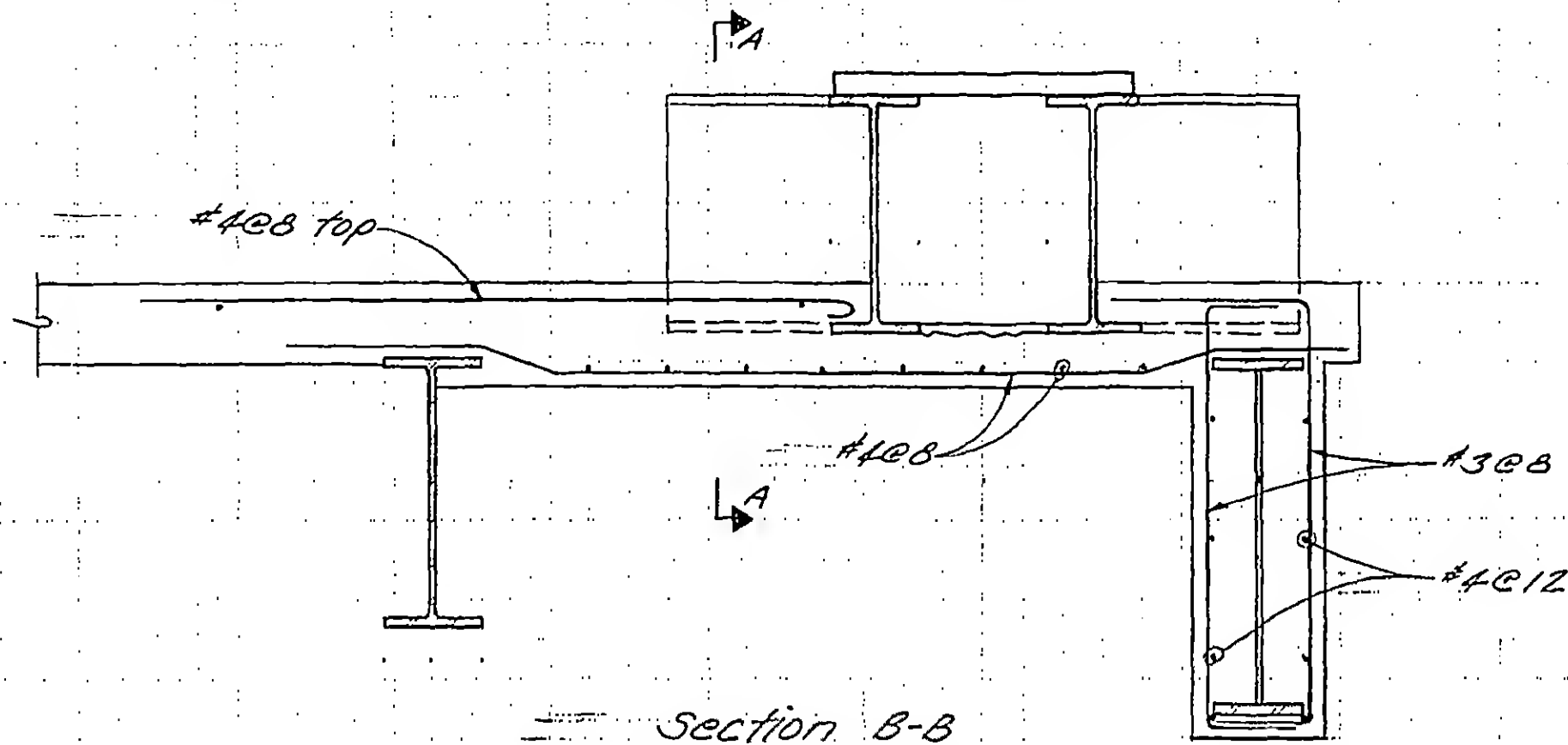
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE SECTIONS - FLOOR 43

DATE 10/24/69

REVISIONS



DESIGNED

DRAWN

REVIEWED

B-AB3-58

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

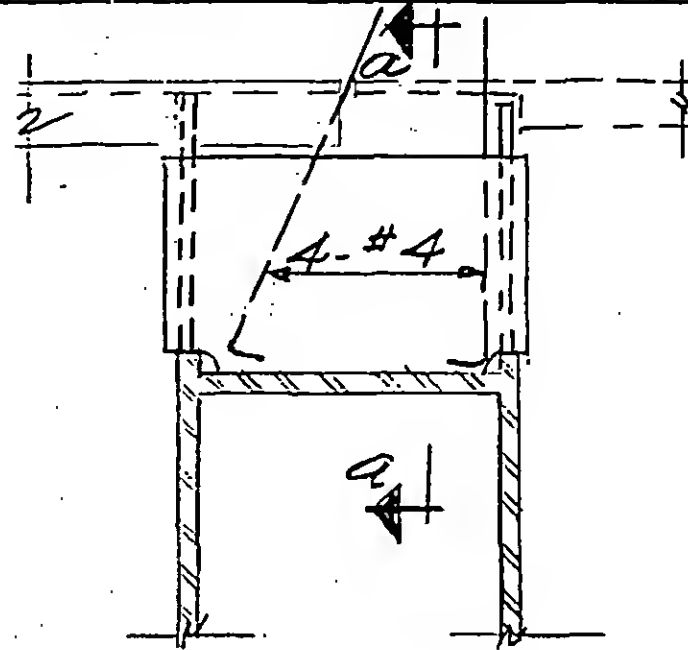
PROJECT THE WORLD TRADE CENTER

TITLE DETAILS AT COLUMNS 504-505

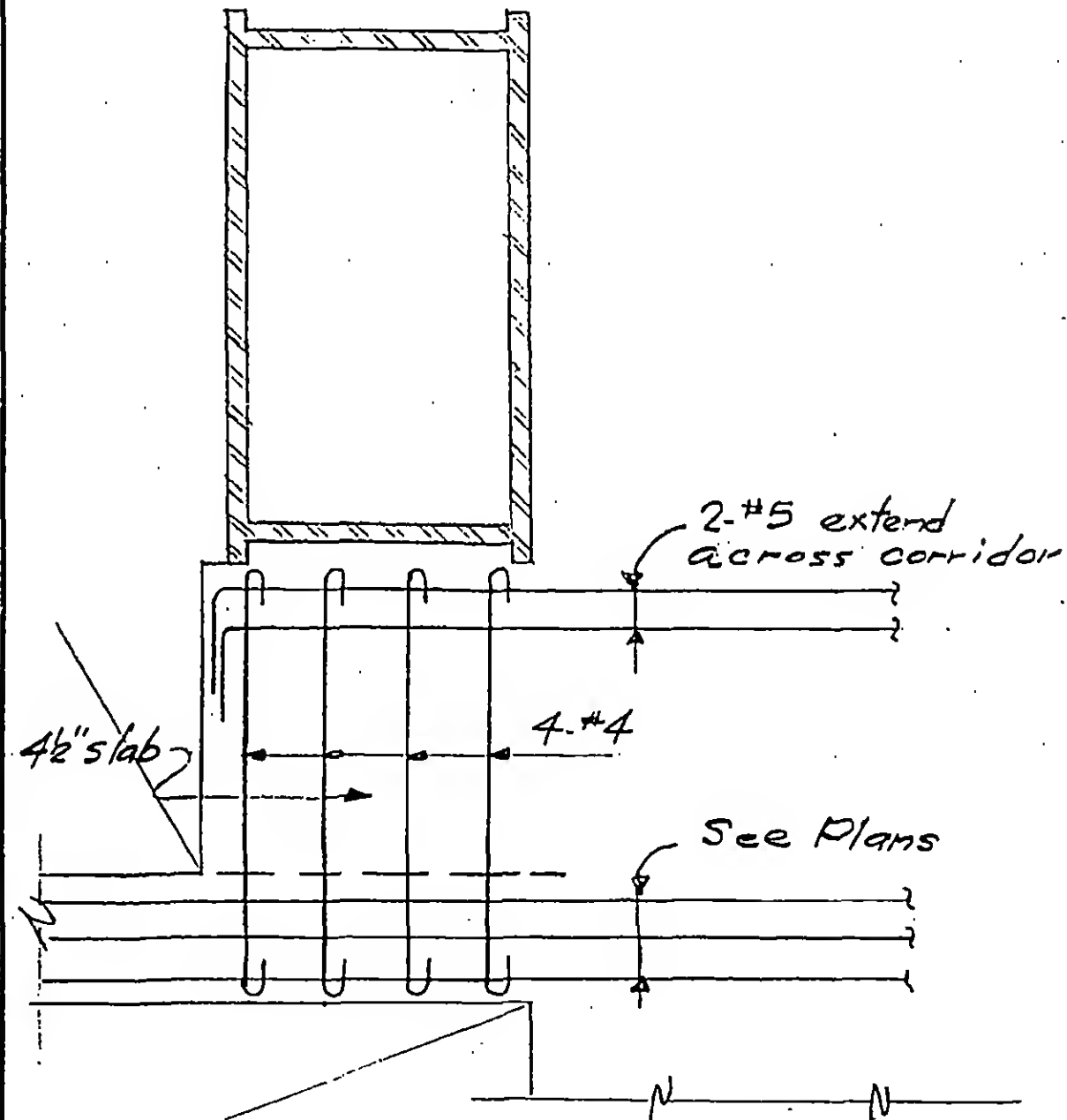
DATE 11-3-69

REVISIONS

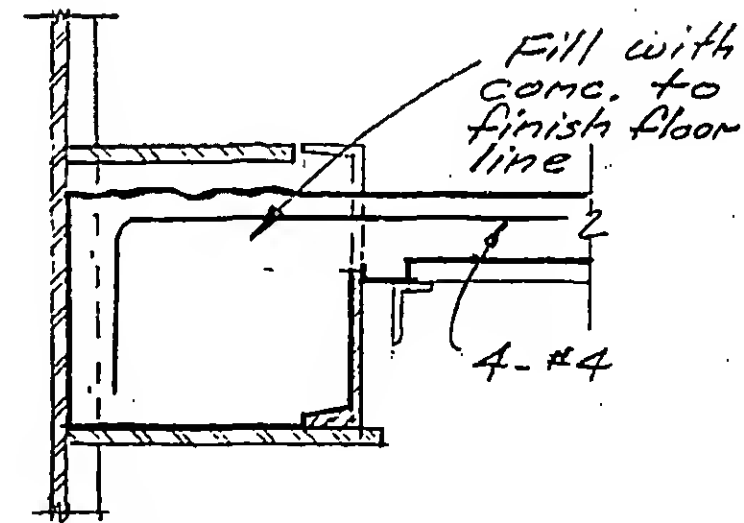
Note: See Concrete Plans
for floors where these
details apply.



Plan



Detail 59 A



Section a-a

Detail 59 B



DESIGNED

DRAWN

REVIEWED

W. Brewer

8-AB3-59

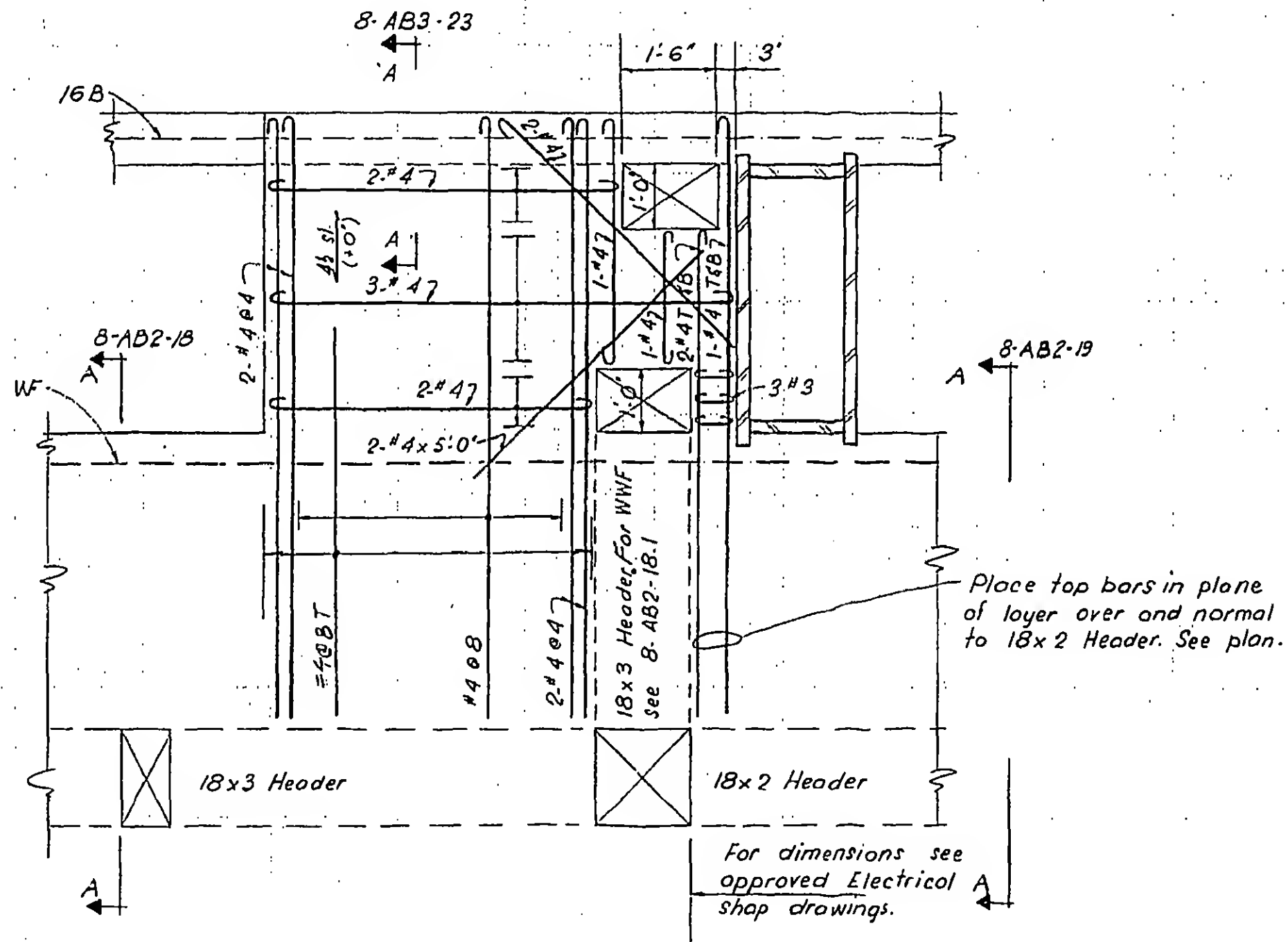
SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET AT COLS. 502, 506, 1003 & 1006 AT EL. 140' DATE 3/19/70

REVISIONS



DESIGNED

T. O'Neill

DRAWN

T. Terrelonge

REVIEWED

8-AB3-60

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

Structural & Civil Engineers

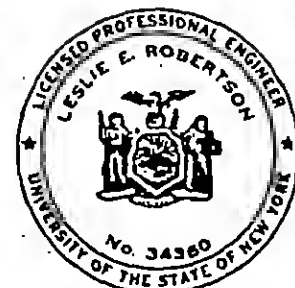
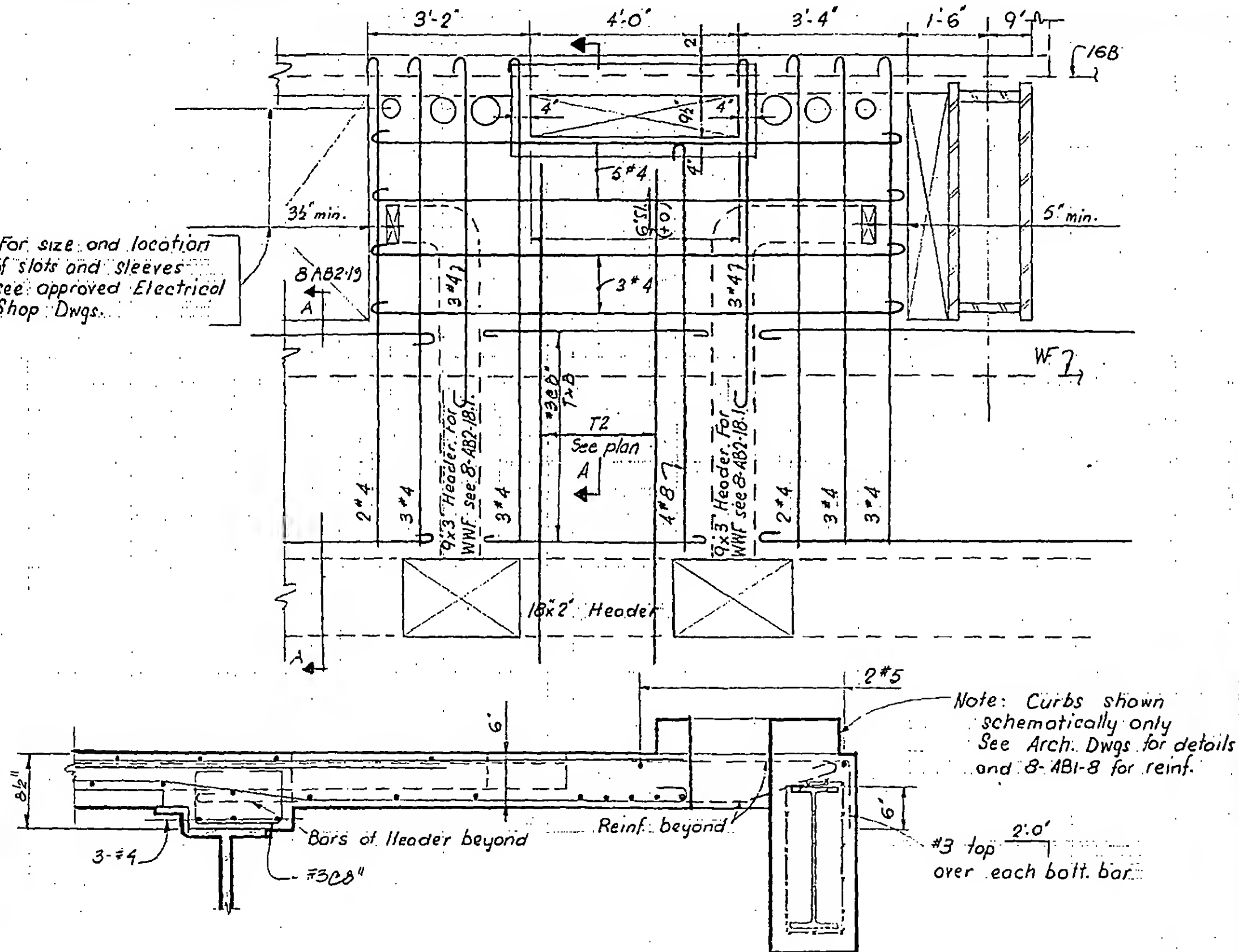
PROJECT THE WORLD TRADE CENTER

TITLE ELECTRICAL CLOSET AT COLS. 505 & 1004 AT EL(+0.0')

DATE 3/19/70

REVISIONS

For size and location
of slots and sleeves
see approved Electrical
Shop Dwg.



DESIGNED

T. O'Neill

DRAWN

T. Terrelonge

REVIEWED

Section A-A

8-AB3-61

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON

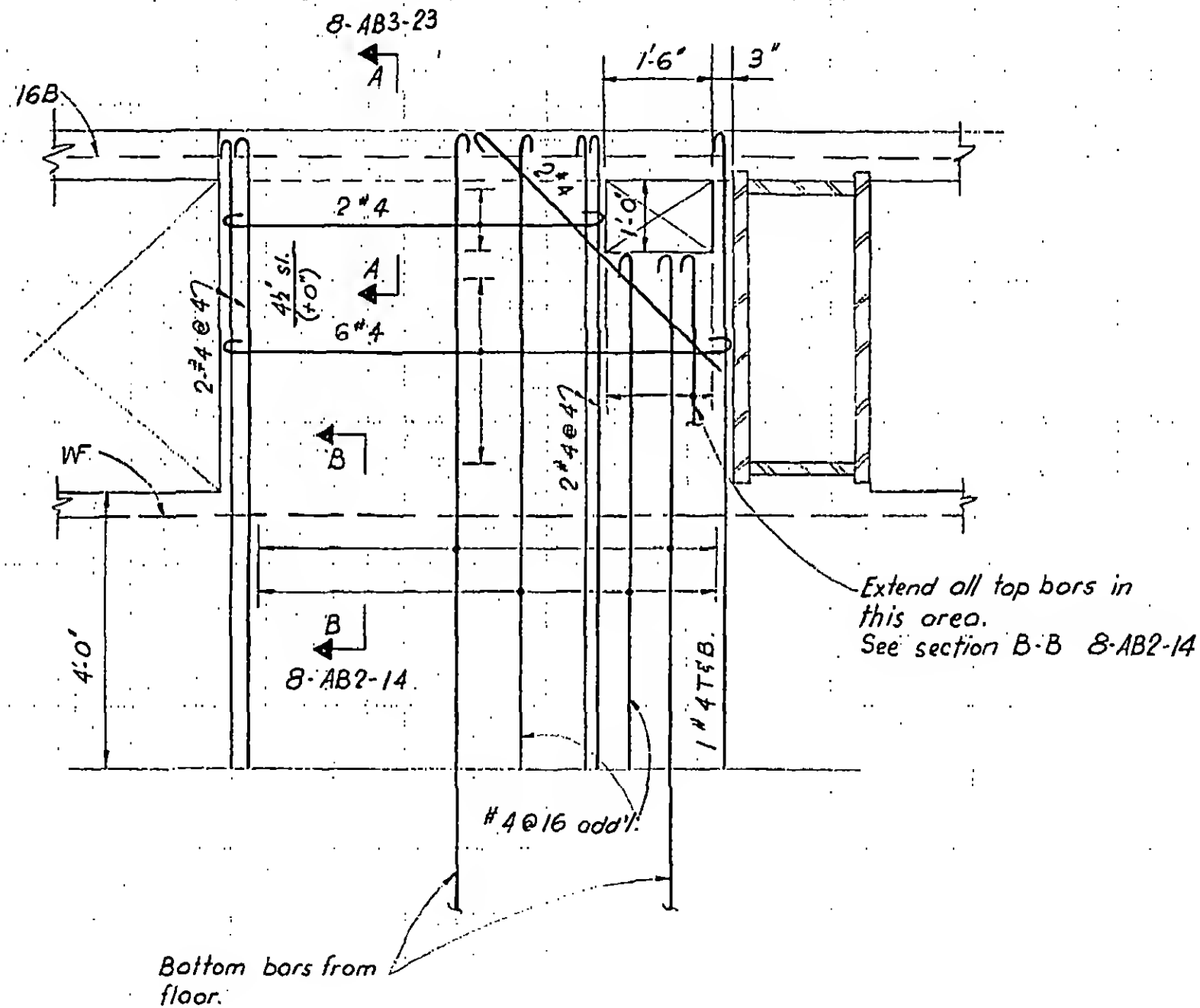
Structural & Civil Engineers

PROJECT THE WORLD TRADE CENTER

TITLE TELEPHONE CLOSET AT COLS. 502, 506, 1003 & 1006 AT EL (+0')

DATE 3-19-70

REVISIONS



DESIGNED

T. O'Neill

DRAWN

T. Terrelonge

REVIEWED

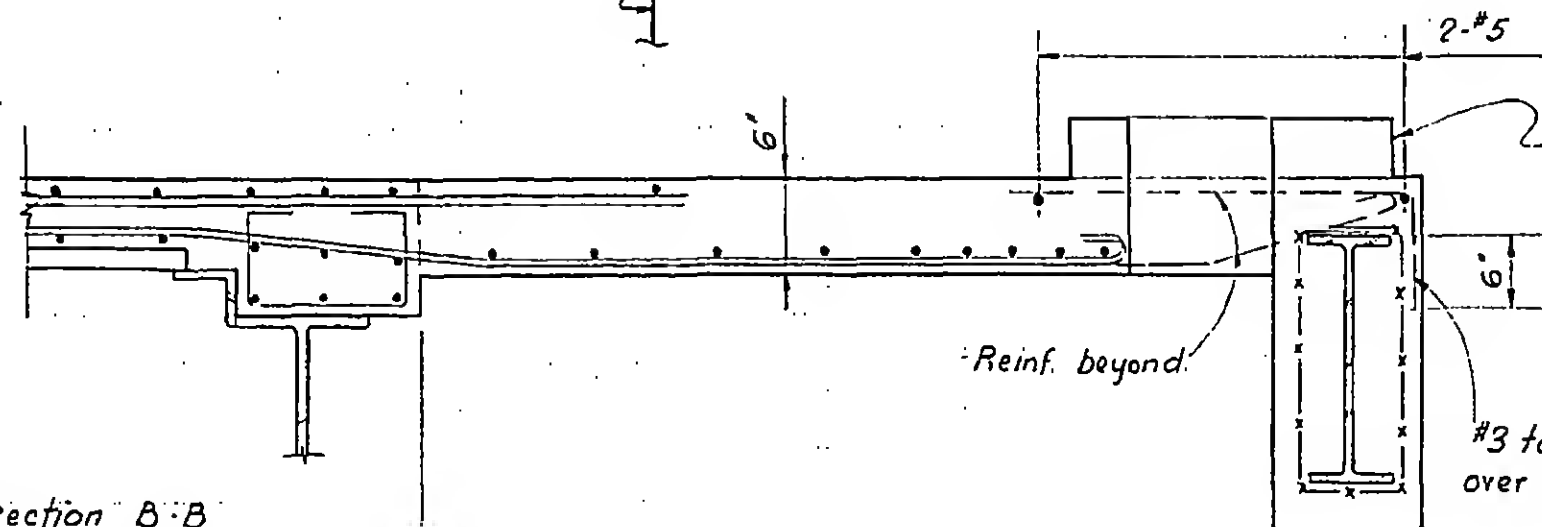
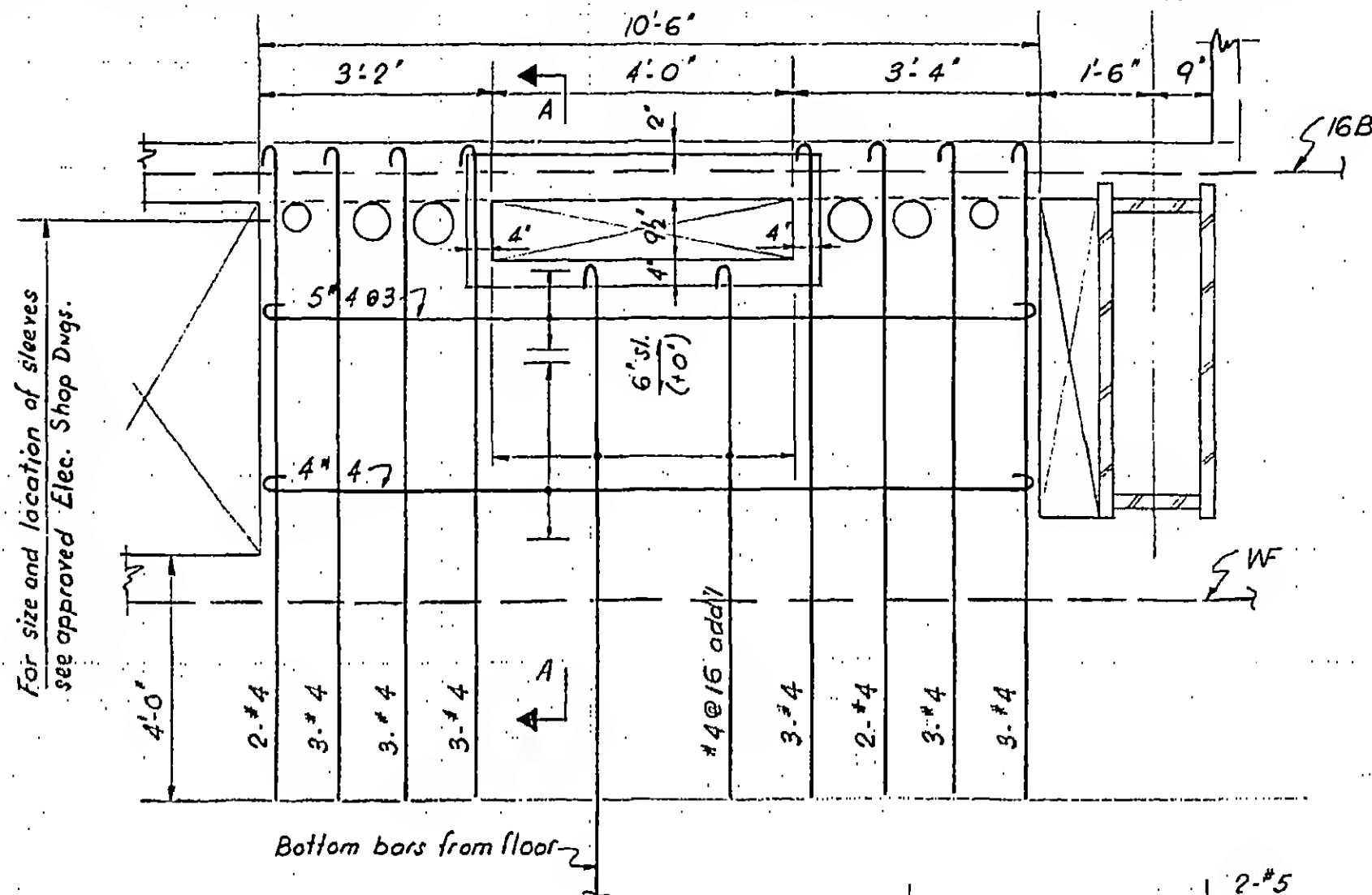
8-AB3-62

Structural & Civil Engineers

TITLE ELECTRICAL CLOSET AT COLUMN 505 & 1004 AT EL. (+0')

DATE 3-19-70

REVISIONS

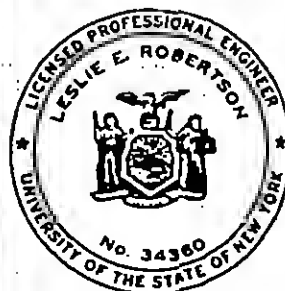


Note: Curbs shown
schematically only.
See Arch. Dwg's for details
and 8-AB1-8 for reinf.

#3 top $\frac{2'-0''}{\quad}$
over ea. bott bar:

See section B-B
8-AB2-14 for details.

SECTION A-A



DESIGNED
T. O'Neill

DRAWN
T. Terrelonge

REVIEWED

8-AB3-63

4931-6001-1578

1063-LEA